

DOCUMENT RESUME

ED 070 900

VT 018 484

AUTHOR Plue, William V.
 TITLE Vocational Education for the Educable Mentally Retarded. Research Monograph Number 11, Volume 1.
 INSTITUTION University of Southern Mississippi, Hattiesburg. Bureau of Educational Research.
 SPONS AGENCY Mississippi State Dept. of Education, Jackson.; Office of Education (DHEW), Washington, D.C.
 PUB DATE Jul 72
 NOTE 199p.
 EDRS PRICE MF-\$0.65 HC-\$6.58
 DESCRIPTORS Demonstration Projects; *Educable Mentally Handicapped; *Educational Needs; Environmental Influences; Goal Orientation; *High School Students; Literature Reviews; Psychomotor Skills; *Research Reviews (Publications); Social Maturity; Tables (Data); Vocational Adjustment; Vocational Development; *Vocational Education
 IDENTIFIERS *Mississippi

ABSTRACT

Intended as a basis for vocational curriculum development useful for educators working with educable mentally handicapped high school students, this research study of work aptitudes necessary for the educable retarded includes extensive data resulting from a 5-year investigation of unique factors important for their vocational adjustment. The first four chapters consist of literature reviews in these areas: (1) general reviews in vocational education, (2) psychomotor goal implications, (3) social development implications, and (4) work experience, community, and society relationships. Cooperative demonstration programs are discussed in the fifth and sixth chapters, in an attempt to isolate characteristics leading specifically to vocational success for the retarded. Interpretations of structured interviews of vocational education personnel in Mississippi who work with the educable mentally handicapped are presented, and a summary of the research findings indicates that the general goals of social maturity, psychomotor skills development, and environmental comprehension appear most relevant to the vocational needs of these students. A wide range of tables presents the data. This document is related to three others, available as VT018 483, VT 018 485, and VT 018 478 in this issue. (AG)

ED 070900

VT018484

No. 11
July, 1972
Volume 1

**RESEARCH MONOGRAPH: VOCATIONAL
EDUCATION FOR THE EDUCABLE
MENTALLY RETARDED**

William V. Plue

Bureau of Educational Research
University of Southern Mississippi
Hattiesburg, Mississippi

FD 070900

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

Research Monograph

VOCATIONAL EDUCATION FOR THE
EDUCABLE MENTALLY RETARDED

W. V. Plue, Ed.D.
University of Southern Mississippi
1972

The project reported herein is being performed utilizing funds made available to the State of Mississippi under provisions of Part C of Public Law 90-576 administered by the Office of Education, U.S. Department of Health, Education, and Welfare.

PREFACE

The following report records an investigation that spans a five year period. The first data was collected for the purpose of supporting a research study of work aptitudes for the educable retarded. This study, including the data, was a review of literature concerning those indices which seemed important for the retarded to become more vocationally proficient according to numerous researchers and authors.

The next data, included in this report, is an examination of a demonstration research report, "A Study of Work Aptitudes in an Educable Retarded Sample." In this, a study was made of 187 educable mentally retarded ninth and tenth grade students of the Portland School District, Portland, Oregon.

The third body of data is encompassed in "A Coordinated Program for Vocational Rehabilitation Services for the Mentally Retarded," which was a final report of Project RD 1681 and which researched a cooperative program between the Portland School District and the Division of Vocational Rehabilitation with ancillary services with Goodwill Industries (reported in a Work Experience Program for the Mentally Retarded in Their Last Year in School, final report RD 1736) and the Eastmont Program of Multnomah County, Oregon.

The fourth body of data is an updated review of the literature by four doctoral condidates (research assistants) at the University of Southern Mississippi. This data was to support or to add to the reviews previously made. In this, however, particular attention was made to regional characteristics in case this proved to be "different." This did not prove to be the case.

The last collection of data is of scheduled interviews with counselors, teachers, parents, employers, and former educable retarded students of the Mississippi Region. Graduate assistants and faculty members reviewed vocational concerns with each, separately and in groups, to find what kinds of information would best serve an educational plan.

All of this data was collected to develop a Vocational Education Curriculum Guide for the High School Educable Retarded. Particular emphasis, however, was given to the concerns in the state of Mississippi. This project was supported by the Division of Vocational and Technical Education, with A. P. Fatherree as Director and was approved by the U.S. Office of Education. Many students at the University participated in this research in one form or another. Some gave suggestions with regard to educational activities. Mrs. Gertrude Hinson contributed an excellent partial listing of Mississippi employers and industry. Miss Carla Jean Plue provided Occupational Therapy activities that could lend themselves to curricula activities related to vocational

aptitudes. In addition, many reports of demonstration project records were reviewed by this researcher and by students to gain more insight to the parameters of vocational education for the retarded.

In part, or wholly, the following assisted in the production of this research:

Mrs. Lela Alcorn, graduate assistant
Dr. Carolyn Reynolds, graduate assistant
Mr. Ernst Hjermsstad, graduate assistant
Miss Carla Plue, undergraduate assistant
Mr. Richard Scribner, graduate assistant
Dr. Winston Markwalder, faculty
Edited by Mrs. Patricia L. Culpepper

Principle Investigator:

Dr. William V. Plue
Chairman, Department of Special Education
University of Southern Mississippi

TABLE OF CONTENTS

PREFACE	ii
LIST OF TABLES	vi
LIST OF FIGURES	viii
INTRODUCTION	1

PART I. LITERATURE REVIEWS

Chapter

I. GENERAL REVIEWS IN VOCATIONAL EDUCATION CONCERNING THE EDUCABLE MENTALLY RETARDED .	5
II. PSYCHO-MOTOR IMPLICATIONS OF WORK FOR THE RETARDED IN VOCATIONAL EDUCATION	21
III. SOCIAL IMPLICATIONS OF WORK FOR THE RETARDED IN VOCATIONAL EDUCATION	35
IV. WORK EXPERIENCE, COMMUNITY, AND SOCIETY RELATIONSHIPS	46

PART II. COOPERATIVE PROGRAMS

V. A DIGEST OF FINDINGS IN A SAMPLE COOPERATIVE PROGRAM - RD 1681	61
VI. REVIEW OF SELECTED COOPERATIVE DEMONSTRATION PROGRAM	96

PART III. STRUCTURED INTERVIEWS

VII. STRUCTURED INTERVIEWS IN MISSISSIPPI	119
---	-----

PART IV. SUMMARY

VIII. TOWARD SYNTHESIS	178
----------------------------------	-----

LIST OF TABLES

Table	Page
1. Tabulation of Items: Work Evaluation Report . .	25
2. Comparison of Interpolated Raw Score Norms of Selected GATB and MTMA Subtests of Two Hundred Six Subjects in Experimental Study . .	26
3. Adjusted Raw Score Mean Data on GATB and MTMA Sub Scales	28
4. Instances of Socially Oriented Problems Found in Clinic Files of 109 Closed Cases . .	69
5. Socio-Economic Estimates of the First 154 Clients of Project 1681	70
6. Characteristics of Jobs and Clients to Employment Opportunities	73
7. Percentage of Times Work Information Was Reported in Selected School Records of 135 Project 1681 Closed Cases	75
8. Kinds of Employment and Their Relationship to Training and Openings of 66 Selected Employed Clients	77
9. A Comparison of Selected Curriculum Objectives To Successful and Unsuccessful Clients	80
10. Estimates of Client's "Attitudes"	91
11. Factors that Contribute to Successful Employment	120
12. Problems Encountered in Working with Vocational Education Clients	121
13. General Problems in Working with Vocational Education Clients	123
14. Checklist for Vocational Education Counselors .	126
15. Analysis of Vocational Education Questionnaire of Counselors	130

Table	Page
16. Analysis of Vocational Education Questionnaire of Teachers	135
17. Analysis of Vocational Education Questionnaire of Employers	143
18. Analysis of Vocational Education Questionnaire from Parents of Vocational Education Students	147
19. Analysis of Vocational Education Questionnaire of Vocational Workers	150
20. Analysis of Vocational Education Questionnaire of Former Students	157
21. Types of Work by Regions in Mississippi for Rehabilitated EMR in 1970-71	175

LIST OF FIGURES

Figure	Page
1. Comparison of Group A-B-C; Adjustments of Total GATB Scores (K, P, Q, F, M)	29
2. Cooperative Structure for Vocational Program	90

INTRODUCTION

Few "practitioners" would deny that a significant aim in educating the educable mentally retarded (EMR) is to reach a degree of vocational success. The goal is, in fact, that such a person become a self sufficient individual.

This is an aim, but its means of accomplishment has become clouded through different interpretations and meanings of vocational education, occupational education, employment education, work education, etc. The phrases occupational education as Kirk and Johnson (1951) point out has been used differently to mean different programs. Depending on the people involved, actual on-the-job-experience or Vocational English could mean occupational education. The goal, however, has been essentially toward the adjustment of the EMR on some sort of job. How this adjustment develops and what is done to promote are the points of this paper.

For the purposes of clarity, this author chooses to use the phrase vocational education (VE) to encompass the meaning of other similar terms; and he intends to give information that is important to successful employment for the EMR.

Several limitations have been imposed in this work. Reviews are of the post-1950 period. Non-institutional data

has been used to keep a focus on the educational setting where most EMR's are found.

One is immediately struck with how little has been done in the "bread and butter" area of mental retardation as it relates to VE. The distance between usefulness, research, and communication seems to become greater each year; and one wonders how everything might be related. There are a few possibilities.

Computer based research might prove useful. The United States Division of Vocational Rehabilitation and the United States Office of Education has sponsored demonstrations, research, and programs pertaining to VE for the retarded. However, this data has not been compiled and interpreted in a meaningful way. Such an act could prove very useful for educational programs.

Regional Material Centers could serve as outlets for information and materials useful to the field worker. Such centers would have the advantage of assimilating and organizing pertinent data, especially on a local level. The large problem would be in communicating and in building confidences with concerned people.

Publication is another avenue by which usefulness can be conveyed. Some of the problems inherent in publication include the inclusiveness of data, personal biases, and the time factors involved. However, it is an excellent way that "bits" and "pieces" can be brought together to display the divergent thinking in this field.

This work, then, attempts to form a basis for a publication which might give usefulness to the concerned educator who works with the EMR on a day to day basis and an EMR educator who is interested in their eventual self sufficiency.

Part I consists of Literature Reviews which are divided into the four following chapters which seemed to be relatively discreet areas and which emerged crucial:

Chapter One - General Reviews in Vocational Education

Chapter Two - Psycho-Motor Implications

Chapter Three - Social Implications

Chapter Four - Work Experience, Community and Society

Part II focuses on particular demonstration projects. This research attempts to suggest peculiar characteristics that seemed to lead to more successful employment for the EMR. Chapter Five specifically concentrates on the RD 1681 and RD 1736 companion projects in which this author was the principle investigator. Chapter Six surveys other reports of a similar nature, but all are demonstrations.

Part III is a report of the structured interviews made with personnel in Mississippi, who work with EMR in vocational matters. The results of these interviews are reported, and interpretations are made. These are stated in Chapter Seven.

Part IV, Chapter Eight, is a summary of the findings of this research. This chapter points out specifically the indices that could be of most value in VE for the high school EMR.

PART I - LITERATURE REVIEWS

Under the broad phrase vocational education, one will find many similar titles and meanings. VE may be defined as that which deals with the common elements in obtaining, maintaining, and advancing in a job. This definition is rather inclusive and does not restrict pertinent findings. Vocational education, rehabilitation, work skills, work studies, and employment knowledge are but a few of the "titles" under which data can be gathered. Kirk and Johnson (1951) give the following description of what VE terms imply in an effective program:

1. Occupational Information consists of giving pupils information about jobs and job analysis of the work which is available to them.
2. Vocational Guidance gives assistance in meshing abilities with jobs which interest him to discover the area for which he is best fitted.
3. Vocational Training trains the pupil in the manual skills found in work areas and can include general habits, attitudes, and skills necessary for good workmanship and citizenship.
4. Vocational Placement gives the individual help in finding work.
5. Social Placement helps the individual in adjusting to the job and to society.

Kirk and Johnson (1951) is considered a basic text in the ERM field; yet, many interpretations and/or emphases have been made of the described vocational program. One is impressed by the notions ventured by several reviews; and the concerns are many.

CHAPTER I
GENERAL REVIEWS IN VOCATIONAL EDUCATION CONCERNING
THE EDUCABLE MENTALLY RETARDED

Concern is often shown for the methods used in research, particularly in vocation programs for the retarded. Goldstein (1959), for instance, questioned the methodological problems for treatment and habilitation. He points out in regard to vocational education that findings about training in schools is unclear. The problems involved in the selection of subjects for training, the development of programs of training, the systems of placement, and the evaluating the nature and results of training are far from clear. One would find it difficult to specify some of the findings. As Goldstein points out, what we really need to know is "how to evaluate." The point is well taken.

With regard to programs, little is given on the characteristics of the programs or on any routine critical aspects of the program. What results is usually either a description of jobs held or why jobs are lost or a statement that factors other than IQ emerge as the most significant indicators of success. In these factors lies much conflict in the EMR field.

Many seem to assume that IQ and problem solving in a test situation are one of the better indicators of work

potential. This appears true only to a degree. Larson (1962), Abel (1940), Fry (1956) found the WISC Performance Scale may be indicators; however, such judgements would call for applying means (sometimes less than 3 standard score points) to individuals, and this is risky. Sontag (1969) and Barrett (1965) indicated in their studies that intellectual (and work habit) variables were the most important predictors and that those who were able to think on a higher reasoning level were more successful. Higher than "what" was not defined, however.

Conversely, McPherson (1964) found lower IQ successes than the 75 to 84 IQ range in his study; and Kidd (1967) found no relation between IQ and earnings or stability in work. Sarason (1958) discounts IQ almost entirely. He concluded that tests to a marked degree measure educational opportunity and achievement. He also states; "Most tests are woefully inadequate for the evaluation of the various human aptitudes." Field workers, dealing with the EMR in work situations, tend to agree with the notion that IQ is not of great importance. Many outstanding examples are given where low IQ (50-65) EMR's are highly successful in work situations.

None of the "intellectual" studies appear to take into account the "kinds" of employment. Dinger (1958) found less than 32% of the employed EMR subjects in his sample had any need for reading, writing, or arithmetic skills beyond signing their paychecks.

A relationship of IQ to employability has been reported by Abel (1940), Phelps (1956), Reynolds and Stunkard

(1960), and Collmen and Newlyn (1956). These studies report some relationship between higher IQ's and employment success.

Conversely, McIntosh (1949), Hartzler (1951), Shaffer (1957), and Mullen (1952) could find no relationship. In fact, Shaffer (1957), Greene (1945), or Cowan and Goldman (1959) could report no differences in the number of years in school, nor type of school, as it affects employability.

Evidently, what is being indicated is that IQ does not necessarily effect job success. An EMR would probably have a better chance than a TMR, yet this could depend on the specific nature of the job at hand. It is quite possible that certain packaging jobs, for instance, might be done better by a TMR than an EMR; but variables other than IQ would be determining factors.

Abel's (1940) study was done on 84 girls who were unable to complete elementary school in Manhattan High School for Women's Garment Trades. She showed that 64 of 72 attained success who had IQ's over 70 on an Otis. However, 89% of the girls were of foreign parents; and language was a definite factor. One wonders how many were really EMR's. The mention of IQ was not stated in her conclusions, which did mention the factors of stable home, ambitions, careful placement, patience, and "luck."

Collman and Newlyn (1956) compared 35 of 62 failures in the 60-69 IQ (Terman-Merrill) bracket against 8 of 14 failures in the 40-49 range. Both groups represent about a 56% failure in Manchester, England, where two-thirds of the

males worked in factories or as laborers and where one-half of the females worked in factories and one-fourth in domestic service. In each group the failure reasons were similar. Perhaps IQ could be a factor in many factory or domestic jobs where three or four step operations are not uncommon; however, the defects of unreliability and bad time-keeping were felt to be of more significant importance.

In general, it does not appear that IQ is the crucial factor in vocational education of the EMR; but if it is not, what is? What direction does vocational education seem to benefit? What does seem to be in evidence?

One writer-researcher, Kolstoe (1960) seemed to take stands on issues. In a study of Madison, Wisconsin post school EMR's, he pointed to a consistency that developed from those who gained employment and those who did not. The advantage is stated to be with those persons who came from homes where they had a chance to exercise some initiative, had a good physical appearance and social graces, and who had the ability to concentrate on the tasks at hand.

In a later study, Kolstoe (1961) re-examined 82 items in eight different areas; home background, IQ, physical characteristics, school experience, academic achievement, rural vs. urban background, personal skills and vocational skills. Again, the physical appearance factor was evident, which is no real surprise. There was a personality stress on those who were cheerful, cooperative, and respectful, who had ability to mind own business, who were on time, and who showed

initiative. Also, vocational skills involving work habits, assembly sorting, manipulating, packaging, and the use of hand tools were evident. The three factors of personal appearance, personal skills, and vocational skills were significantly better for those EMR's who were more successful in employment.

In still a later work, Kolstoe and Shaffer (1961) made a review of research based on previous findings in which they stated:

Not only should the entire training program (vocational education) of the individual stress motor coordination, gross to fine, but it should also provide an opportunity for worthwhile work situations. It seems apparent that an effort to instruct the individual in the use of hand tools, tasks of assembly, sorting for speed and accuracy should be built into the program experience at a Junior High School or High School level.

Kolstoe and Shaffer (1961) further suggest that attempts to determine the potential for employability and the ability to work successfully require a clear statement of what is to be predicted. In addition, attempts should be made to accurately describe jobs already successfully performed according to intellectual, personal, social, and vocational skills and according to programming requirements.

In light of the basic work of Kolstoe (1960, 1961), it seems that the following basic characteristics and curricular needs be shown: (They are also reported in Kolstoe's book, A High School Work-Study Program for Mentally Subnormal Students, 1965.)

A. Characteristics important to employment in service

occupations, light industrial work, and business and clerical work are the following:

- 1--dexterity, coordination, discrimination, and mobility.
- 2--attention span, cooperation, willingness, and initiative.
- 3--amount of supervision and directions needed to to perform the task.
- 4--ability to count, alphabetize, and make change.
- 5--reaction to criticism, supervision, and evaluations.
- 6--ability to work independently and with others.
- 7--self-confidence and sense of responsibility.
- 8--sociability as indicated by verbal exchange, manners, consideration for others, and social sensitivity.
- 9--ability to follow a routine or to stick with a task.
- 10--judgment or confidence in a work situation or the ability to made decisions.
- 11--responsibility for making an adequate personal appearance.

B. Personal appearance factors needing attention are the following:

- 1--correction of orthopedic handicaps by prosthetics and exercise.
- 2--correction of cosmetic disfigurements if possible.
- 3--correction of speech problems.

- 4--development of habits of cleanliness.
- 5--development of habits of good grooming.
- 6--learning the skills of simple cooking and kitchen cleanliness.
- 7--learning the skills of clothing cleanliness, repair, and renovation.
- 8--learning habits of physical fitness and weight control.

C. Social characteristics felt important follow:

- 1--learning to get along with peers is an ability that may be demonstrated in a variety of ways. Social acceptance can be accomplished by being an active, participating member of a group. It might also involve being social isolate; that is, a person who has no interaction with a group may be demonstrating perfectly good social behavior even though he has no part in group activities. So long as his presence does not interfere with the operations of the group, he is "getting along with his peers." The key to this skill seems to be his lack of interference rather than his degree of participation.
- 2--learning to get along with supervisors can be demonstrated in a variety of ways. It is critical that he be willing to accept advice, supervision, or criticism without becoming aggressive, moody, withdrawn, or discouraged. Probably this ability

is a product of his own "self-concept" and develops from a backlog of success experiences which allow him to accept both help and criticism without becoming discouraged.

3--ability to work independently as a demonstration of maturity may be in part a function of chronological and mental age. It is also a reflection of his "self-concept"; however, it seems more intimately a skill which can be learned if considerable practice of a successful nature is provided.

4--it is quite probably that the ability to work with a group is dependent upon a person's ability to work independently. Group work generally calls for the pooling of individual efforts in some kind of time sequence. It depends, therefore, on the meshing of a great many individual contributions. It would appear that this skill can be learned only after an individual has first learned to work independently. Then he may learn those skills of patience, timing, and coordination which are required for group activities.

5--cheerfulness is a characteristic that reflects both an attitude and an individual's feeling of self-worth, and there is no reason to believe that an expression of optimism or cheerfulness cannot be at least partially taught. The

accentuation of the positive is emphasized in the training programs of many kinds of service personnel (notably airline stewardesses) where the specifics of this behavior are judged to be important to the job. Through the giving of careful attention to the use of praise, the building up of a backlog of successful experiences, and the emphasizing of the benefits of a smiling countenance, a public image may become habitual.

D. Important Vocational Skills follow:

- 1--skills of dexterity and coordination involve the assembly of both fine and gross, simple and complex units; sorting according to color, size, shape, and texture; and the simple and involved use of both hands and feet. These can with practice be successfully learned.
- 2--the ability to persist or to stick to a repetitive or demanding task is a skill which can be taught and which may become an important part of a prospective employee's vocational equipment.
- 3--the ability to work under varying conditions involving pressure, time, noise, distraction, or supervision seems to be an important employee characteristic. Apparently practice and exposure to these conditions is crucial to its development.

4--learning to be responsible for getting to and from the job, being on time, being careful with property and other personnel, and being properly dressed or equipped for the job seem critical to employment. Although chronological and mental maturity are certainly factors in this sense of responsibility, it is quite evident that elements of this characteristic can be learned.

5--realistic job expectation seems to be largely a product of experience in both self-evaluation and job evaluation. It is both important and teachable.

When one reviews the data available, he may be impressed with the lack of work done in a school setting. This was part of the concern of Goldstein (1959). It would seem that more focus should be made in this area. Since the "typical" EMR is going to spend much of his time in a school program, it appears that research in this area would be more fruitful.

This situation may be part of what MacMillian (1962) had in mind when he pointed out that the focus of EMR follow-up study has typically been in the wrong area. He believes researchers neglect the adjustment process of going from a school "program" into society and that perhaps this adjustment would shed some light on needs. Blackman (1963) was also concerned about the factors in a school program. He

points out that research so far is not yet concerned with educational materials in special classes; however, it was not stated what he meant by "materials." Yet his main emphasis pointed to the lack of research in schools.

In one of the more extensive reviews of vocational education for the retarded having a support grant, Windle (1962) issued his findings in "vocational areas" in a monograph supplement to the AJMD. This review was a concentrated attempt to make a survey of research of successful vs. unsuccessful mentally retarded. Windle's conclusions were that flaws in work behavior are usually attributed to personal characteristics or to personality. This agrees with Collman and Newlyn (1956), who also referred to aptitudes and physical abilities and which agree with Badham (1955) and O'Connor (1957).

An earlier review, edited by D. Michael (1952), attempted to bring several surveys together. This attempt proved to be much more successful in getting to the heart of the many vocational education problems. In this review, Engel (1952) pointed out that the EMR had very little use for academic skills other than those used to fill out application blanks (note Dinger, 1958), and to read posters and notices. She felt, however, that the school should give the fundamental requirements of living and working. Further, she also felt that there is a great need to teach about laws that affect workers (especially those under 21) and that there is a general need to learn to work with accepted practices.

The report did not define "accepted practices," however, it may be assumed, since there are great differences in job demands, that an individual should see the necessity for adapting to what is accepted in a given place. For instance, hospitals and nursing homes have a particular way that they wish beds to be made. This will differ from one hospital to another or from one nursing home to another. The fact that one can make a bed in an accepted manner is helpful; but the employee must realize he may have to adapt. A boy with shoulder length hair seeking a job as a bus boy may be accepted in a New York City restaurant but not in a Miami one. This fact must be accepted, and choices must be made.

This concept can produce the need for making several job analyses for unskilled, service, and semi-skilled work. This work might differ from community to community; but it would seem highly important to the EMR learner. For instance, "examining" type jobs need good vision, perception, reliability, and an adequate amount of manual dexterity. Errand jobs require verbal comprehension, the ability to carry out written and oral instructions, and the ability to find one's way from one point to another .

In an attempt to join all the research on occupational adjustment, Goldstein (1964) reviewed comparative follow-up studies, vocational status, occupations held, occupations and IQ, mobility, and the occupational outlook with regard to the mentally retarded. His major conclusions were as follows:

1. The retarded do not change jobs more frequently than normal workers.
2. There is some evidence that suggests that retarded workers have a more difficult time being accepted by their fellow workers.
3. The retarded tend to cluster in the unskilled work category.
4. Service occupations are becoming more important as a source of EMR labor.
5. IQ and occupational level has inconclusive meaning.
6. The occupational picture for the retarded is far from encouraging.
7. Training programs and counseling and guidance service play a critical role in the adjustment of workers.

Summary of Chapter One

Six extensive reviews of research by four authors which dealt with vocational education for the retarded in whole or part were those of D. Michael (1952), Kolstoe (1960, 1961), Windle (1962), and Goldstein (1959, 1964). Supplement to these reviews were several individual studies that appeared to have a direct bearing on vocational education.

From these reviews, the following agreements seem to emerge:

1. The retarded seem to find most of their employment in unskilled categories. This type of employment varies with no one job, such as janitor which is particularly dominant. There appears to be a growing number of EMR's finding employment in what is termed "service" areas. Semi-skilled work is the category where the second largest group of EMR's find employment.

2. Family support and relations seem to be an important factor. This would suggest a counseling program for the EMR that is a bit more active than what is considered "normal" in regular programs. Some chance for responsibility within the family and in the school setting appears to be a factor.
3. Personal appearance and good health practices are mentioned in several studies either as dominant factors of underlying ones. These are common sense indicators in our society. If other things are equal, an employer is going to choose an employee who has adequate appearance and respectable health habits.
4. IQ and intelligence is not an overriding factor in unskilled or semi-skilled work. Reliability and honest effort seem to be far more important. The retarded tend not to change jobs often.
5. The occupational picture in unskilled and semi-skilled work is changing.
6. Personal and social skills are factors of paramount importance. The ability to handle criticism, the ability to adjust, the ability to interact with people in an acceptable manner are especially important.
7. "Work skills", as a very broad heading, is crucial to the EMR in many respects. This appears to be a "catch-all" for several factors. Coordination activities (including dexterity, assembly, sorting, and perception) is a factor.
8. A survey of the community related to the EMR population is important to give information that is usable for training. A knowledge of what people are doing, job holding, trends, social climate, and economic structure can give valuable information for those concerned with education and training of the EMR.
9. Knowledge of "laws," movements and procedures is also a factor.

Certain words, phrases, and statements may be extracted from the foregoing information. These are listed below as possible variables that could lead to curriculum making.

stable home	initiative
ambition	work habits
careful placement	assembly tasks
patience	sorting for speed
luck	sorting for accuracy
reliability	manipulating tasks
time-keeping	packaging
exercise some initiative	use of hand tools
(in home)	motor coordination, fine
good physical appearance	motor coordination, gross
ability to concentrate on	work experience situations
tasks at hand	dexterity
social grace	coordination
cheerful	discrimination
cooperation	mobility
respectful	attention span
ability to mind own business	sense of responsibility
willingness	verbal exchange
amount of supervision needed	manners
to perform tasks	consideration for others
counting	social sensitivity
alphabetize	follow a route
make change	confidence
reaction to criticism	make decisions
reaction to supervision	laws that affect workers
reaction to evaluations	work with accepted practices
work independently	adaptability
work with others	community survey
self confidence	

It is obvious that a certain amount of duplication is inherent; however, the terms should be useful.

The above list tends to be related to three broad categories. One has to do with the social and personal aspects of the world of the learner and with his interactions relating to people. This is a main area which research considers significant.

The second area is one where "vocational skills" occur. It appears to point toward the nature of aptitudes and psychomotor abilities and is not as well defined as some. However, much research points to this as a significant area.

A final area is rather broad, but it seems to take

into account the "significant others" that influence the learner. Included are factors relating to the environment. The community, the nature of programs, work experience, and society (which includes teachers and counselors) in general are factors of importance. •

Each would appear to be worthy of exploration as aspect of EMR vocational education.

CHAPTER II

PSYCHO-MOTOR IMPLICATIONS OF WORK FOR THE RETARDED IN VOCATIONAL EDUCATION

The term "psycho-motor" should be used in its broadest sense. It mainly refers to the movements required and involved in performing a job. Some movement is conspicuous; others are not. The term also includes the perception needed to calibrate or to direct movement.

In literature related to the EMR and vocational data, the following terms are often used: motor learning, motor activity, motor experience, motor habits, motor coordination, motor sense, motor aptitudes, work skills, work habits, motor skills, work aptitudes, psychomotor, etc.

Psycho-motor's importance is stated by Benton (1964) as he points out that:

A genius can afford to be a motor imbecile, but a person with an IQ of 75 cannot. The latter's psycho-motor ability may well determine whether he will attain a reasonable degree of social competence. For this reason, assessment of motor capacity is an aspect of the psychological evaluation which has significant implications for prediction, guidance, and training. (page 37)

Several researchers have been concerned with the psycho-motor domain and with the many aspects of it. The findings are somewhat mixed, and interpretations are clouded.

Banmeister, et al., (1966) gave twenty pre-test trials

followed by rest periods to 48 normals and 48 EMR's (matched CA's) on rotary pursuit performances. He found that the normals were initially superior but with further practice, that the retarded overtook them. Further, "comparable amounts of reminiscence were shown by normals and retarded; and the deficient displayed more warm-up decrement." Just why a reduction or lessening took place in this study is not explained, neither is the memory factor fully explained which seems unusual. However, the authors do conclude that perhaps the early learning deficiency may be in part related to an inability to identify and to attend to critical stimulus dimensions. This notion may be associated to the theory work of Zeamon and Hause (1963). In short, the EMR fails to see what he has accomplished and, therefore, cannot adjust his behavior accordingly.

This, of course, is clouded and actually raises more questions. It would appear that "practice" could help the EMR become more functional, and it may take a longer period of time. However, it seems reasonable that performance tasks is a many "varied thing."

Specific "vocational skills" have been described relative to employability by DiMichael (1952), Ferguson (1958), and Jacobs and Weingold (1958). These authors classified jobs by mental age requirements and by production standards. These did not hold definitely because, paradoxically, excellent workshop procedures were often unable to secure and hold employment. This means that other variables do come

into play and perhaps that the EMR cannot be "rated" by such measures. The M.A. indicator was discussed in the previous chapter and was found "wanting" as a predictor or index of employment success.

Micheal-Smith (1950), Phelps (1956), Neff (1959), and Fitzpatrick (1956) found work habits are an important factor related to the quality of work done. Kubick (1959) lists the following psycho-motor skills as being important in a Wisconsin DVR Center: write, physical coordination, and visual discrimination.

Dexterity has been studied by Tizard and O'Conner (1950) and by Cantor and Stacey (1951) with the general finding that the EMR is significantly below normal standards. These studies used the Purdue Pegboard and parts of the General Aptitude Test Battery (four subtests). The EMR scored considerably below the norms for men on spatial aptitudes, form perception, dexterity and motor speed--with the latter being the most deficient. The deficiencies, while somewhat subtle, averaged one and one-half standard deviation below the reported norms, a finding later confirmed by Plue (1967).

In keeping with the above work, Francis and Rarick (1960) studies motor skills relative to physical education. Their findings were, as many would expect, that the retarded were from two to four years behind normal children in such skills. In general, the psycho-motor areas appear generally deficit; however, "practice" seems to be a helpful factor.

One outstanding factor, however, is the large amount of variance of scores found in these and other studies measuring psycho-motor characteristics. In many instances, the ranges are far beyond established norms. In the Cantor and Stacey (1951) research, some 28% of the sample scored above general averages. Tizard (1950) also reported that many of the subjects scored "high" in some areas.

Appel (1962) neither rejects nor really supports the above works. He studied 37 EMR subjects who were trained in a workshop situation and tried to determine what factors were significant, using the Mann-Whitney U Test, in distinguishing between success and unsucccess. The results are indicated in Table 1.

While Appel (1962) found a variety of factors, it is evident from this study that there are diverse, including psycho-motor, characteristics involved. Also, it is important to consider what criterion is applied. If the criterion were different kinds of jobs, it might be expected that significant vs. non-significant could be different than those shown in Table 1.

With regard to specific psycho-motor factors, Plue (1967) investigated scores on 187 EMR's on pertinent GATB sub-tests and the MacQuarrie Test of Mechanical Abilities which indicated, as in early studies, that the retarded generally performed on such tasks well below established norms. These scores are shown in Table 2 and indicate low general performances; however, individual variances were evident.

TABLE 1
TABULATION OF ITEMS: WORK EVALUATION REPORT

Items	Significant	Not Significant
I. General Studies	Following instructions--oral Learning speed Retention Attention to job Attention span Job Comprehension Manual dexterity--gross	Following instructions--written Manual dexterity Fine--finger Fine--small tools Coordination--both hands
II. Work Approach	Interest level--motivation Bizarre behavior amount of attention seeking speed accuracy complexity of work responsibility initiative perseverance degree of supervision Adjustment to variety of work Adjustment to repetitive work	Attendance Punctuality Bizarre behavior judgment Care of Tools, office equipment, maintenance
III. Social Attitudes and adjustments	Grooming Self-confidence Cooperativeness Acceptance of supervision Group response acceptance of group acceptance by group communication	
IV. WISC	Non-verbal scale	Verbal scale Full scale

TABLE 2
COMPARISON OF INTERPOLATED RAW SCORE NORMS OF SELECTED
GATB AND MTMA SUBTESTS OF TWO HUNDRED SIX
SUBJECTS IN EXPERIMENTAL STUDY

Source	Interpolated Norms	Subject Means	Estimated Percentile	Ranges
<u>GATB</u>				
Totals	375.32	291.72	5%	140-420
K (motor coordination)	69.58	52.81	10%	10-85
Q (clerical perception)	40.08	23.48	24%	6-51
P (form perception)	58.92	34.79	11%	0-51
F (finger dexterity)	54.41	36.51	1%	15-77
M (manual dexterity)	171.81	144.14	1%	50-200
<u>MTMA</u>				
Totals	60.00	43.6	8%	30-75
Tracing (manual-visual)	30.56	20.1	18%	Not observed
Tapping (dexterity)	38.61	28.1	5%	22-46
Dotting (manual-visual)	20.00	17.1	20%	10-26
Copying (spatial)	40.67	11.6	3%	1-34
Location (spatial)	24.63	6.3	2%	0-29
Blocks (spatial)	10.45	3.2	15%	0-21
Pursuits (visual-manual)	19.37	9.8	4%	3-27

Adequate subtests (those that evidenced reliability and homogeneity) on the GATB (I, Q, P, F, M) and MTMA (Tapping, dexterity and motor speed; Dotting, manual and/or visual activity; Pursuit, visual-manual activity {Super, 1949}) were used as criterion measures against psycho-motor activities. Those activities included separating, coding, gross arm movements, matching, decision-making, finger manipulation, and noticing differences and similarities. In addition, two experimental groups and one control group were used to compare 6 week trials and 12 week trials by using a co-variant

statistical technique. The A group was the control group, the B group tried 6 weeks of treatment followed by 6 weeks of non-treatment, and the C group had 12 weeks of treatment. Table 3 indicates the results.

The gross scores can be shown in graph form, as in Figure One which indicates in general that the A group (control) did not show much gain (some "practice" effect); the B group gained and leveled off; and the C group showed continuous gain.

According to these criterion measures, the data in Tables 2 and 3 and Figure One suggest the following:

1. Psycho-motor scores are generally low.
2. Psycho-motor activities can be learned or improved.
3. Many psycho-motor activities, once learned, apparently are retained.

It seems that the retarded, who are generally weak in psycho-motor areas, can learn to do work-related motor pursuits and that once they are learned many seem to be retained. It could further suggest that experience (lack of practice) and education (opportunity to learn) are important parameters. This has direct importance to curricula planning, and it should be remembered that the cited criterion measures on the GATB test have been shown to have adequate validity related to occupations (U.S. Department of Labor, 1962 and Anastasi, 1957, Super, 1949, Kinzer, J. R., 1949).

Burdett (1963) suggests it would be more useful to use a work-sample approach to ascertain the types of motor abilities needed in the kinds of work the EMR appear to do.

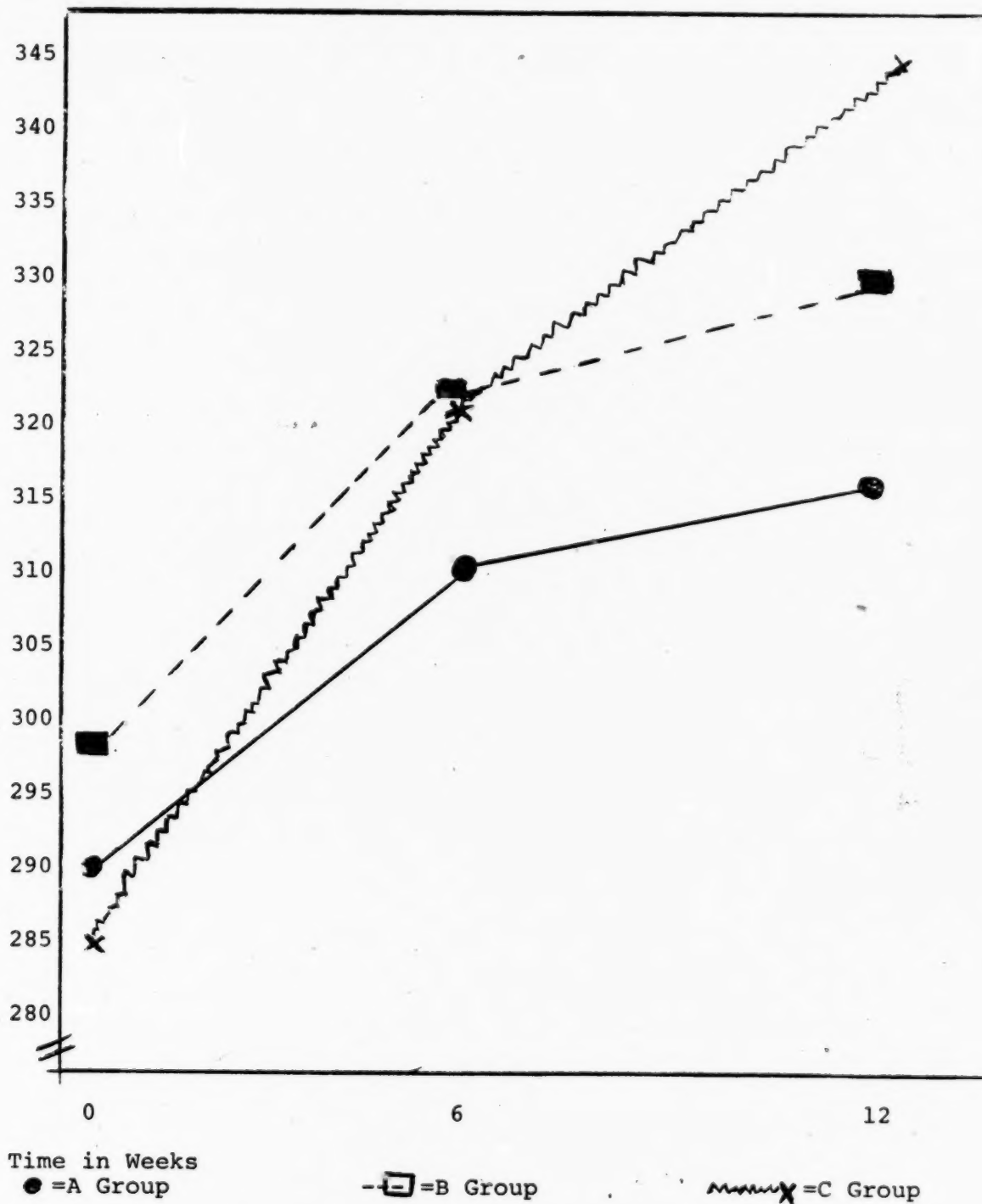
TABLE 3
ADJUSTED RAW SCORE MEAN DATA ON GATB AND MTMA
SUB SCALES

Group		0	Time 6	12	0-6	Gains 6-12	0-12
(GATB Totals ^a K,P,Q,F,M)						(raw scores)	
(N=67)	A	291	311	315	20	4	24
(N=66)	B	298	326	329	38*	3	41
(N=73)	C	285	325	345	40*	20*	60*
(K-Sub Scale-motor coordination, motor speed, aiming)							
	A	52	55	55	3	0	3
	B	55	57	60	2	3	5
	C	52	58	60	6	2	8*
(Q-Sub Scale-clerical perception, differences & similarities)							
	A	25	26	25	1	-1	0
	B	23	29	28	6*	-1	5
	C	23	27	31	4*	4*	8*
(P-Sub Scale-form perception, shapes, size, visual forms)							
	A	35	38	38	3	0	3
	B	35	44	42	9*	-2	7
	C	34	41	45	7*	4*	11*
(F-Sub Scale-finger dexterity, fine motor)							
	A	37	40	41	3	1	4
	B	37	43	44	6*	1	7
	C	36	42	45	6*	3	9*
(M-Sub Scale-manual dexterity, gross motor)							
	A	142	152	156	10	4	14
	B	149	158	159	9	1	10
	C	141	155	165	14*	10*	24*
(MTMA-Pursuit, visual-manual)							
	A	9	10	11	1	1	2
	B	9	13	11	4*	-2	2
	C	10	14	16	4*	2*	6*

*Indicates statistical significance at the .01 level.

^aScores rounded to nearest whole number for this table.

Figure 1.--Comparison of Group A-B-C; Adjustments of Total GATB Scores (K, P, Q, F, M)



He noted the following types of work:

1. light industry--bench assembly, packaging, sorting, shipping room procedures, repairing, and assembly line procedures.
2. service Occupations--porter, messenger, laundry, hospital aide, and domestic.
3. office; clerical--mail room operation, receptionists, use of standard office machines, and filing.
4. machine operation--power equipment.
5. basic tool equipment, use, and identification.

Burdett's (1963) idea has much merit and several implications concerning motor proficiency. If it were possible to replicate the jobs, many motor aptitudes could possibly be trained. The potential skill level could be determined for many types of work; yet, other variables would undoubtedly come into play in the final analysis.

Cantor (1960) investigated the proposition that the EMR motor performance (when an EMR is competing with a member of opposite sex) would encounter interference. However, his investigation using 64 adults on the Minnesota Rate of Manipulation Test could not confirm this by the results. It would appear then that some motor abilities, as measured here, need not be affected by this social factor.

In relation to Perceptual-Motor Learning, Lipman (1963) makes a fine review in the Handbook of Mental Deficiency edited by Norman R. Ellis. He notes the following:

maze learning--on open-maze tasks, retarded subjects have an equal MA advantage when compared with fairly young normals and evidence little or no deficit in equal CA comparisons.

rotary pursuit studies--normals appear to "develop" more quickly than retarded.

mirror drawing--retarded show a deficit on equal-CA, however, suggestions are made that with "extended" practice this might be overcome.

assembly, card-sorting, and coding tasks--data suggests an equal-MA advantage "provided" sufficient practice is given on those components of the task which make for efficient performance.

form-board, athletic, and miscellaneous tasks--the MA level seems to determine the upper limit of task complexity that can be mastered, however, provided the task is within the ability range of the subject, "sufficient" practice might overcome initial performance disadvantages. Both the difficulty dimension and the practice dimension are worthy variables for future study.

This review seems to indicate that the retarded are slower in initial learning tasks, with regard to perceptual-motor, but may possibly be equal if the practice is "right." This evidence dispells some of the notions that the mentally retarded are necessarily "gawky." It would appear that correct training methods could overcome most deficits in this area.

One notion, that keeps reoccurring with regard in motor abilities, is that deficits are somehow closely related to perceptual processes. Spivak (1963) notes the following:

. . . results to date suggest that retarded Ss as a group are less efficient than those with normal intelligence in the ability to make fine discriminations between different points along a single dimension and less able to recognize complex stimuli when exposed for brief intervals. There are no data available regarding whether or not poor discrimination or recognition ability is a characteristic or "trait" of a retarded individual, such that poor performance in

other modalities. Also, there are no data bearing on the relationship between discrimination efficiency and ability to recognize or identify complex stimuli.

Evidently, all that is known is that the EMR is less efficient in making fine discrimination; and since this applies to motor abilities, it could account for some poor performances found in work situations. It is possible that much depends on the "skill" the subject finds himself performing.

The motor skill aspect is reviewed by Malpass (1963, Handbook of Mental Deficiency, edited by Ellis) with regard to mental deficiency. His findings, in general, include the following (p. 626):

1. The mentally retarded as a group demonstrate less motor competence and skill than do normals of the same sex and age.
2. It is possible that delayed maturation of motor functions plays some part in the differences observed between retarded and normal Ss.
3. It is reasonable to assume that less stimulation and fewer reinforcements for learning motor skills may play a considerable part in the lowered-response rate and general motor proficiencies of mental defectives.
4. Motor proficiency has implications for educational, vocational, social, and recreational activities of mental defectives.
5. Vocational implications of motor abilities suggest the need for more refined job appraisal and training procedures for the mentally retarded.

Summary of Chapter II

Seven major reviews (Kubiak 1959, Tizard and O'Conner 1950, Appel 1962, Burdett 1963, Lipman 1963, Spivack 1963,

and Malpass 1963) were made with regard to implications in psycho-motor abilities.

Supplemental to these reviews were several other studies that appeared to have a relationship.

In general, the following incites do coincide:

1. Training is most important and evidently has been somewhat neglected. Educational programs should note that early learning in MP areas may correct deficits. Practice in many MP areas seem to allow the EMR equal ability. The EMR evidently are "slower" initially but can "catch-up" if training period gives sufficient time.
2. There is a tendency to have a large amount of variance in MP abilities. As with most people, there are great individual differences within the EMR group. Taken as a group, the EMR are below normals in most MP areas. Many individual EMR's, however, can do better than normals on some specific MP skills.
3. The perception factor is vague. However, it seems to be involved somehow with many EMR individuals. The EMR do not discriminate very well with fine objects. This may be because they fail to see what is accomplished in the tasks they do or because they do not pay much attention to the MP tasks that need to be performed.
4. Generally speaking, the EMR are "slow" in many MP areas. This may be because of poor maturation, or it may be related to environment and opportunity factors. It is possible that "slowness" is due to a combination of factors.
5. The work-sample approach may give better application to training methods. Reviewing the different aspects of the work being done by the EMR can possibly lead to better evaluation procedures if the crucial parts of such work is taught and analyzed.
6. Motor proficiency as a vocational aspect of the EMR. Unskilled and semi-skilled work involves much physical coordination, visual discrimination, movement, dexterity, and speed. The EMR as a group are deficient in many of these areas, but evidently can be trained to perform in an acceptable manner.

7. Other variables come into "play" with regard to the total vocational picture. General abilities, work habits, and social aptitudes are a few indicators that, along with MP, make for vocational success. Educators, no doubt, will have to play for all of these in their curricula.

It will be noted that there is overlapping in some of the findings from chapter to chapter. This is to be expected. Rarely do we find a "pure" factor or an ability in isolation.

As in the previous chapter, certain words and phrases can be indexed. The following seem important to curriculum making for the EMR in psycho-motor abilities:

motor practice	physical education skills
motor memory	job comprehension
learn what is accomplished	adjust to variety of work
work habits	adjust to repetitive work
write	manual-visual
physical coordination	separating
visual discrimination	coding
spatial aptitudes	matching
form perception	motor decision making
finger dexterity	differences & similarities
motor dexterity	pursuit tasks
motor speed	sorting
light industry	clerical perception
service work	job appraisal
clerical	
machine operation	
tool use	
tool identification	
assembly	

CHAPTER III

SOCIAL IMPLICATION OF WORK FOR THE RETARDED IN VOCATION EDUCATION

Under the broad heading of social aspects will be included those areas that deal with personal skills, attitudes, aptitudes, and the relations which appear in society in general.

As is evident from Chapter I, this is a varied field. Some conclusions, however, may be made. It is important that they be made as vocational success appears to be significantly related to EMR and SA factors. Educators could well heed some of the findings.

Personal attributes such as appearance, habits, attitude have been investigated. Reynolds and Stunkard (1960) used physical appearance and condition as a factor to predict success. Employers polled by Michal-Smith (1950) and the work by Kolstoe (1961) considered this an important factor. However, Shaffer (1957) and Neff (1959) could find no relationship.

Perhaps selective placement influences these studies. The partial answer may lie in the type of work the EMR are doing at a given time. As Michal-Smith (1950) points out, the successful factors change from the work one does in the view

of the people who are evaluating. For example, in manual work and machine operation the following were felt to be the most important attributes:

1. shows caution
2. is not clumsy
3. is not forgetful
4. is not easily fatigued.

In work of repetitive nature:

1. is not clumsy
2. is not easily fatigued
3. performs responsible routine chores.

In work of a social nature (meets public):

1. is emotionally even-tempered
2. feels loyalty to company
3. is personally attractive.

Warren (1961) presents a similar list. Using the Mann-Whitney "U" Test in determining if certain specific and/or general factors were instrumental in the employment or unemployment of a group of EMR. He found the following to be significant:

Specific Factors

self-confidence	mix socially with other
cheerfulness	employees
cooperation with superiors	complete work on time
respect for supervisors	quality of work
mind own business	understands work
	initiative

General Factors

personal adjustment	work habits
social adjustment	work efficiency
probability of permanent employment	

In this study, however, the factors of accepting criticism, neatness and cleanness, self-consciousness, care of materials and property, and punctuality were not significant factors.

What the above means can only be described in relation to the situation under study. Warren's (1961) was not descriptive enough to allow the conditioning effect of employers or to allow the demands of the particular "jobs" to which we alluded to be scrutinized. Educators would have a difficult time being convinced the factor of care of materials would not help employment success. Every busboy could lose his wages by not being careful.

Some studies have been more descriptive in nature, and the findings are diverse. Cowan and Goldman (1959) asserted that the degree of family support seems important in the employability of retarded adults. This concurs with Shafter (1957), Greene (1945), and Kolstoe (1961) who report some relationship with home influence, especially where there is a good degree of family support affecting the student.

Kolstoe (1961) points out the following in his summary:

It appears that vocational success is greater among those who have had a considerable degree of freedom to make decisions concerning their activities and conduct.

Kolstoe (1961) also points out that this occurs many times in family situations characterized by parental neglect. It is interesting to speculate what this would do to many socio-economic measures.

Social characteristics have been studied. In an extensive study in England, Gunzburg (1959) found emotional factors to be in direct relation to predicting vocational success. Quarrelsomeness, aggressiveness, and obedience were cited factors by Shafter (1957). But Kolstoe (1961) cautions against trying to use these types of findings as predictors of success, pointing out that even the best index can only predict 66% correctly.

One particular researcher, Cohen (1960), is more descriptive of the EMR in society. Cohen made a study of 73 unsuccessful work placements at Johnston Center, N.J., which is said to be very similar to public school programs. The findings are described:

1. The students were able to meet the skills and strengths of placement.
2. One-third experienced difficulty in their adjustment in the community (these included pilfering, sexual problems, altering a check, unable to account for an absent day, and six incidents came to attention of legal authorities).
3. Seventeen returned for reasons over which they had no control--illness, insufficient savings to pay for medical care, parental objections to placement, living in sub-standard quarters, and seasonal work.
4. Some exhibited a generally poor attitude with regard to the job--ten just simply quit, one took four days off when he had only one coming, and one visited out of town and had only money for one-way fare.
5. Others demonstrated a lack of readiness for employment or a difficulty in adjusting to employment--fifteen cases were unmotivated, lazy, or vulgar, or not amenable to supervision.
6. Still others encountered severe problems at home--ten couldn't get along with parents or siblings.

All of the findings would suggest a type of social problem. This Cohen study points out the need for maintaining systems and schedules, community relations, and the development of techniques and feelings of responsibility on the part of the students.

Later, Cohen and Rusalem (1964) concluded much the same as before (Cohen's 1960 study). However, they added that the occupational values appear not to be the same for the retarded and that job benefits are less important, as is true in their relations with others or their interest in work.

The Cohen studies tend to show that only social interaction becomes important in the employability of the retarded. This is not, however, consistent when more studies are viewed. Collman and Newlyn (1956) found that the order of failures were character defects, inefficiency, temperamental, instability, and home conditions. This, in effect, confirms the conclusions of Kolstoe (1961) cited in Chapter II.

Perhaps it is best to view the situation with the EMR as something which is unique. It may be that the only view to be taken is one of peculiarity in a given situation. What is particular in one study may not be in another simply because of psychological or economic situation of a community. Winthrop (1959) points out that the literature is far too vast to summarize, but none appear to look at the standpoint of management. He points out that the unskilled skewness of labor is changing. It now takes a period of time to train

and that there is a "critical peak" at which it becomes unprofitable to deal with any worker. When one considers the total cost and profit against the hourly break-even point, it simply becomes a "business proposition" whether any worker will be a liability.

Scott and Carroll (1961) note that mentally retarded are the most difficult to rehabilitate; and if this takes a fair amount of time, it would be most difficult to hold a job from an economic standpoint. It usually does not take a great length of time for the EMR to find himself a failure. If failure is to occur, it will occur rapidly (Madison, 1964).

Goldstein (1964), in a major review of social adjustment of adult retardates and normal peers, indicates that the retarded are generally inferior in employment, welfare records, police records, and community participation. However, he also notes that because of the methodological matching done in most studies (based upon common attendance at a public school or residence in the same neighborhood during school years). It is not surprising that these differences exist.

In one last significant study, Gragert (1962) lends support to the importance of personal and social skills. In an eight week demonstration project, he attempted to make intellectual, academic, social, psychological, and vocational assessments of 132 EMR clients. Gragert was particularly observing the behavior of the clients as they went through the training processes at the Kansas City Vocational Rehabilitation Center.

In work study sampling operations, Gragert found that during orientation much time had to be spent with what could be described as work finesse. The time clock, lunch hours, break periods, rest rooms, general conduct rules, fire and emergency procedures were most difficult for this sample to comprehend. He found the following significant factors as general:

1. A high degree of the infantilisms and dependence on others for instruction.
2. A general emotional liability characterized by lack of control over mood shifts.
3. A tendency to be self-deprecating and to feel inadequate.
4. A general heterosexual immaturity inhibited by cultural taboos in the sexual areas.

In explaining his findings, Gragert summarizes and postulates that the male trainees failed to establish any adequate masculine identity at all and took mostly to female supervision. He points out that most fathers remain aloof to the EMR offspring and that the subjects gain their rapport with a mother image. He points out that group therapy appears to promote social adjustments and personal skills like sharing, clean clothing, cosmetics, and personal cleanliness.

The following traits were observed as "keys" in helping accomplish a successful habilitation:

1. function intellectually to perform in a vocational setting.
2. adequate personal appearance.
3. eye-hand coordination.
4. attention span.

5. ability to communicate.
6. sense of security.
7. a perception of work as a meaningful part of life.
8. realistic academic programming.
9. family allocation of personal responsibility.
10. history of realistic family controls.
11. realistic vocational aspirations by client and family.

The above may be helped by the following suggestions:

1. more effective use of Special Education in preparation of EMR for world of work.
2. home program for personal development.
3. establishment of work adjustment centers and programs for training more effective work habits.
4. more realistic job counseling.

There were several limitations to the study of Gragert, since the sample was not adequately described and no statistical analysis was made. This was an observational study made by apparently knowledgeable people. At any rate, the observations should be taken because the description of the EMR in the work setting is valid in many cases.

The overall implication from the "social" reviews is that to be effective training programs for the retarded must pay close attention to this area. The ramifications are rather obvious for education, and the reviews seem to reflect the many variables found.

Summary of Chapter III

Four major reviews (Warren 1961, Cohen 1960, Goldstein 1964, and Gragert 1962) were made with implications to

social aspects. Supplemental to these reviews were several other studies that appeared to have similar relationships.

In general, several agreements can be made:

1. Personal appearance is a factor. Other things being equal, the one who presents himself better will be hired and given more liberty for early mistakes. For this reason, a school program should pay much attention to personal grooming including the use of cosmetics, shaving, grooming, and perhaps corrective physical help.
2. General social skills seem to be a significant factor. The values of being able to mix well, to cooperate, to communicate, to be courteous, and to have acceptable socializing activities is of great importance. Employers stress cooperation, cheerful attitudes, and punctuality as curcial indicators of successful employment. The school program needs to pay close attention to this area.
3. Student and parent counseling seem to be a wise course of action. Studies indicate a degree of personal independence and responsibility promote success. Also, if physical appearances and social skills are significant, counseling in individual or group sessions is an excellent means to approach many areas and to achieve good results. Family support is very important. This implies a thorough understanding by the family of the educational program.
4. Certain factors of emotionality should be modified for better eventual adjustment. Educational planning, whether it be in the classroom lessons, counseling, or work activities should pay close attention to the emotional climate of the individual. Such factors as self-confidence, cooperation, initiative, attitudes, and maturity may need possible modification to be in form of acceptability to society in general. Depending on the individual, this may include several types of sexual adjustments.
5. An acceptable knowledge of the EMR's environment appears to be needed for good work adjustment. Acknowledgement, information, relating the community structure, economic status, and work-social "finesse" could further the chances of the EMR in becoming self-sufficient. Little attention has been paid to this factor, yet the literature seems to imply the need. Employers seldom can "teach" this to their

employees; however, the school has the time and the "know-how" if environmental factors are recognized and studied.

Again, it is possible to find overlap in the sections discussed. This fact tends to indicate the many variables involved in trying to secure the EMR's opportunity to become self-sufficient. It must be remembered that many of the EMR's will not need direction of any type other than that of a regular school program. What is being done in school programs is of eminent concern. As already evidenced in this paper, there is a multitude of factors that should not be overlooked.

In many school programs, an attempt has been made to overcome the problem of OE by utilizing a business-work-experience (BWE) program whereby students may practice on-the-job-training. This has had varying degrees of success and is dependent upon a point of view in many cases. Because of the uniqueness of this type of program, it will be explored in the next section, along with other variables of a "society" nature.

Phrases, characteristics, and indices from this chapter include:

caution
not forgetful
responsible
even-tempered
loyalty
good appearance
self confidence
cheerful
cooperative-superiors
cooperative-employees
knowledge of jobs

respect
mind own business
mix socially with other employees
understand work
initiative
carefulness
quality
family support
decision making
agressiveness
sexual problems

work liability
time use
infantilism
mood shifts
feeling adequate

honesty
character defects
labor economics

CHAPTER IV

WORK EXPERIENCE, COMMUNITY, AND SOCIETY RELATIONSHIPS

In this broad area, an attempt is made to establish traits that evolve into general environmental factors. This includes the school whereby many have "work experience" programs independent of those with other agencies--such as the Division of Vocational Rehabilitation or Vocational Education. Also, community factors are involved. The questions of what, where, and how one operates within settings is oft-times a determiner of EMR success.

In even a cursory review of this area, one finds most of the work to be descriptive in nature. Little is said really about the specifics of school programs; and descriptions of EMR's, in their post-school settings are not much more than "descriptions."

Work programs, as presently conceived, are a relatively new type of curriculum plan in schools. Cohen (1964) gives a history of the idea of work programs. He points out that these programs were first developed in institutions and that retraining was the main purpose. However, the focus turned to custodial care; and work programs are mainly within-institutional. After schools went through a number of phases,

they attempted business-work experience programs as an occupational bridge between school and the community.

The business-work experiences (BWE) program attempts to provide academic as well as vocation experiences appropriate to the level, interests, and abilities of the retarded students. A further aspect of current programs is the involvement with public schools by State Division of Vocational Rehabilitation, as the Cooperative Program.

The Report of the President's Panel (1962) recommends that if the potentials of the retarded are to be realized, every retarded youth must have appropriate rehabilitation and related services before, during, and after the termination of his formal education. These services are to provide for the following:

1. training courses in appropriate vocational areas.
2. joint school-work experiences operated cooperatively by school and vocational rehabilitation agencies.
3. clearly defined and adequately supervised programs for on-the-job training of retarded workers.
4. coordination of vocational counseling throughout the entire program.

What the total ramifications of the recommendations will be are just beginning to reveal themselves. New services covering a variety of problems are starting to exert themselves or are in a formulative stage. Inference could be made to several possibilities.

Projects to enable the learning opportunity, especially of pre-school children, are clearly indicated. Part of

this is being done through the Head Start programs as administration through Federal agencies. To date, however, pre-school programs for EMR's have not exerted themselves greatly.

Instructional Materials Centers are beginning to accumulate data for vast geographical areas. As proposed, some of their material gathering will work directly in vocational aspects. It, therefore, may be possible to build better programs and to start BWE in less populated areas.

More State leadership, specialized classroom services, and diagnostic help are other possibilities. The future appears to be one of tremendous growth and improvement. May (1963) points out that vocational programs could be instigated in the following ways:

1. by relating the education and training of the mentally retarded to employment requirements, especially through expert evaluation and counseling.
2. by advising the mentally retarded and their employers of the kinds of jobs they can perform and by job redesigning so that the mentally retarded can perform them.
3. by referring the mentally retarded to jobs they can perform or to training opportunities.
4. by advising the mentally retarded and their fellow workers and employers about the best ways for working together.
5. by exposing the mentally retarded to work in a competitive work situation.
6. by providing the mentally retarded with employment in non-competitive situations if competition is not possible.

These interpretations imply many things; and it will probably take much research, materials, and data gathering before too many specifics emerge.

In an attempt to bring together some of the findings that relate BWE, society, and training, the following list is offered:

DeMichael - 1953 - describes DVR programs

1. great need for occupational training; it is surprising how little is known about unskilled and semiskilled work.

Mullen - 1952 - survey of jobs held

1. school cannot provide specific job training.
2. need for S's to have birth certificates and social security cards.

Kokaska - 1964 - BWE - school description

1. bridge gap between class situation and community.

Goldstein and Heber - 1959 - review of school programs

1. BWE furnishes teacher-counselor with additional information concerning abilities, attitudes, and incentives.
2. integrate day-to-day activities with some protective environment in which he can experiment.
3. experience directly related to future.

Franklin - 1964 - school program descriptives

1. builds work habits (promptness, following directions, learning, routines).
2. teacher-student-work stress as to importance.

Windle - 1962 - review of literature

1. older more likely to succeed.
2. good psycho-motor ability.

Power - 1962 - observations in DVR center

1. cannot be stereotyped.
2. determine present functioning and estimate potential--tend to underestimate potentials.
3. develop more rehabilitation centers.

Seidenfeld - 1962 - survey and predictions of DVR programs

1. greater and more effective use of the prevocational preparation

2. semi and unskilled occupations will be harder to find for EMR--including normal or better than normal times.

Baer - 1960 - survey of 35 states

1. 23 school systems had EMR programs until age 21.
2. 28 school systems accept responsibility for job guidance or placing.
3. Stumbling blocks
 - a. work permits (N = 12)
 - b. curriculum restrictions (N = 8)
 - c. legality of BWE (N = 9)
 - d. parental attitudes (N = 12)
 - e. employer restrictions (N = 18)
 - f. non-acceptance of DVR agency (N = 11)

Cowan and Goldman - 1959 - experiment in training

1. EMR as a result of vocational training will be able to get and keep a job more successfully than a matched non-trained group. (This rejects opinions of Engle 1950 and Keys and Nathan 1932.)
2. placement by vocational counselor may have helped.

Kruger - 1963 - survey of jobs that could be held by EMR in Detroit area

1. knowledge of labor market.
2. know service jobs--hotels, motels, dry cleaning, etc.
3. need high school diploma.
4. possible government work
5. have to make many contacts.

Rockower - 1952 - study of DVR applicants in NYC

1. leave school without preparation to meet demands of world of work.
2. school dubious value for adult living
3. little realistic understanding of implications for employment
4. need great amount of job preparation

Potts - 1952 - description of Michigan DVR

1. on job training is most suitable for EMR

2. counselors have to devote more time than average with EMR
3. some have high level manual dexterity
4. adjust to repetitious more satisfactory

Shawn - 1959 - description of BW in Albany, N.Y.

1. need to make a community job survey
2. set up machines
3. problems of insurance coverage and union obligations

Without doubt, one will note findings that are peculiar to a community. However, there is enough similarity that some judgments can be made.

The problem of what and how to teach the EMR arises. Several ideas have been offered to this end. Eskridge and Patridge (1963) have described the Texas Plan which is organized on a statewide level. The program is divided into levels emphasis of attainment:

- Level 1 - Pre-primary
 - motor and sensory training
 - personal hygiene
 - habit training
- Level 2 - Primary
 - more structured than level 1
- Level 3 - Intermediate
 - communication
 - field trips
- Level 4 - Junior High (upper grade 7-8)
 - introduction to vocations
 - social relationships
- Level 5 - High School (9-10-11)
 - employment and vocations
 - broadier than level 4
- Level 6 - High School (10-11-12)
 - job training - BWE

Level 7 - High School (11-12)
 employment
 getting and holding jobs

Level 8 - 12th - plus
 post school
 DVR

In general, this type of program is the kind that many systems use with varying degrees of emphasis. One problem that exists with this type of approach is "what" is meant by the term "job training." Very few teachers or counselors have had much dealing with unskilled or semi-skilled work. Training then can become a matter of "transfer" of social skills and "tricks-of-the-trade" that are applicable to most work.

In an excellent discussion of what a "work program" implies, Geisler (1956) succinctly points out that the EMR have little chance for work experience and that society through child labor laws tends to decrease the opportunity. Further, the EMR individual in regard to Work Education need the following:

1. someone who understands his unique problem thoroughly and will approach his problem from his point of view.
2. a service that will spearhead his initial placement through obstacles of competition with the normal.
3. someone who will give him job supervision in all phases of employer-employee relationship.
4. someone who can render social supervision as long, and as often, as the need arises. (Some may need only the assurance that comes from knowing that there is available a service which is interested in his problems.)

5. someone who can direct him toward retraining for whatever the reason whenever necessary.

These statements imply many educational applications and come from an excellent observation. One implication most certainly is that a system will need someone to bring this about. Many schools release a teacher part time for this; but, since it may require much travel, the total program can suffer.

Knowledgeable persons to work with an EMR population can be difficult to locate. Fraenkel (1962) further points out what may be needed:

Were a rehabilitation worker to ask for 10 guiding thoughts in working with the mentally retarded, one or more of the following might be of value:

1. Be patient. Retardates reveal far more potential for rehabilitation when given adequate time to demonstrate their abilities, interests, aptitudes; be patient and patient-(or client) centered.
2. Be open-minded. Few experts can tell what the full potential of a retardate is going to be; therefore, assume nothing--investigate.
3. Be thorough. Retardates, like other handicapped clients, may require a full battery of exams as well as physical restoration services before the rehabilitation worker can make an accurate determination regarding feasibility.
4. Be thoughtful. Although a colleague of yours may have rehabilitated a retarded client as a factory worker, there is no reason for the next client to be considered for a similar job only; consider all possible vocational or job areas and select with the client, the one that seems most appropriate.
5. Be flexible. Give a little extra thought to the wide range of possible training opportunities from which the client may profit; if the client is not progressing as rapidly as you believe he should, make sure the training he receives is suitable and within his ability range.

6. Be honest. If you're stymied and the client is not making sufficient progress, call your supervisor or colleague to discuss it and see what else might be done. In some stages, rehabilitation will be a bit more difficult than in others; at those times another head to help think with may pay off.
7. Be careful. When it appears the client is ready for job placement but you still are not sure, double-check the rehabilitation plan; be sure he's ready, willing, and able to be placed.
8. Be decisive. When you feel the rehabilitation plan selected is the most appropriate and the most likely to succeed and that the client has had sufficient opportunity to progress toward the goal outlined, refer him to a job he can handle.
9. Be informed. Be conversant with the professional literature; join appropriate professional and voluntary groups, including your association for retarded children. Attend their meetings; participate in their functions; work on their committees.
10. Be informative. Tell others about your work. Write up your experiences, be they successful or not so that you can share them with your colleagues; contribute to the professional literature.

One final note: Insufficient thought and study has been given to the role of function of the retardate in his own rehabilitation. Of course, one should not speak of the retardate and his readiness or willingness to be rehabilitated without including the retardate's family. Therefore, it would seem a wise move to give some serious thought not only to the retardate but to his family as well, as plans are laid down to assist both to achieve the desired goal--rehabilitation.

Another definite problem is the particular economic situation in a given community. One would have to assess this situation as he sees it. However, the national situation has been surveyed and points of view proffered. Unfortunately the points of view are in conflict.

Goldstein (1963), in a review of statistics released from the U.S. Department of Labor, points out the following:

1. A new class among the unemployed known as "unemployables" are persons of working age who lack marketable skills either because of lack of training or because their skills are obsolete. (Also Seidenfeld, 1962).
2. One-third of the high-school dropouts enter ranks of unskilled.
3. The proportion of unskilled categories is one the wane; 6 of 10 were in 1900; 3 of 10 were in 1950; 1/4 of labor force were predicted to be in 1965; and 1/5 of labor force was predicted to be unskilled in 1975.
4. It is predicted that teenagers will not only increase by 30% by 1965 but that they will constitute by far the largest group of unemployed.

This points out quite clearly that educators of the EMR are faced with the challenge of preparing more effective competitors in a very competitive field.

It may be that some of the statistics could be misleading in that the definitions of unskilled work take on diverse meanings from one report to another. It has been the custom, for instance, to carry agricultural and mining workers as unskilled in some reports. As increased technology has come about, these areas show decline even though there has been an increase in food production. Coal mining has materially increased the unskilled figures. It is also true that agriculture and mining jobs can now be listed as technicians or engineers. The Occupational Outlook Quarterly (1965) gives this picture a different perspective.

This view would indicate that the work EMR are capable of doing will be just about the same or that it will increase in areas like "service." This is quite important

and implies "social" areas of teaching along with other work skills.

Summary of Chapter IV

Two major reviews were made (Geisler 1956, Eskridge and Partridge 1963) with regard to programs. A host of minor studies gave some emphasis to BWE, Society, or Employment.

Several areas of agreement were made, and the implications are many for education:

1. The BWE program in school is gaining wide acceptance. This inference was a particular part of the President's Panel (1962). Evidently, the reference in both cases is suggesting work training. What this involves is anyone's guess and is only limited by the lack of imagination. It is evidently thought that on the job experience of some type is better than none--the notion has a point. It appears that the field is still "feeling" its way in this area. The BWE can, however, give feedback of needs to a teacher, but this sounds suspiciously like trial and error methods.
2. Many work related skills need to be known. Teachers and other educators do not know a great deal about unskilled or semi-skilled work and many times assume that it needs only "transfer" training. Promptness, following directions, routines and work stress appear to be very much needed. Training helps the EMR to become more employable, but there are many aspects of this training. Working in competition, for instance, is an aspect that is neglected. The EMR can be sheltered only so long. While many agree that prevocational training is important, few will discuss the specifics of what should be included.
3. The school needs to make a job survey of its community. What is particular to Detroit may not be particular to another city. While national surveys can give a general point of view, each community has its own peculiarities. Portland has more diverse small enterprises, whereas Detroit would

have more manufacturing. The EMR cannot be stereotyped, and there is a tendency to underestimate their potential.

4. A school program with BWE needs someone to act as a liason between the school and the community. One way most certainly of "knowing" the community is by making contacts with it. Many schools use a coordinator. Other developments in this area are the use of "specific" DVR counselor, as practiced by the Tacoma Public School District of Washington. Others use a teacher-counselor, or in some cases, disregard the whole process. DVR involvement was a recommendation by the President's Panel (1962). The community may have specific "rules" of conduct. Social security cards, work permits, health certificates, TB cards, and curriculum regulations may require some modification.
5. There must be training of personnel in working with EMR populations. If teachers, counselors, and others are involved with the education of the EMR, it is necessary that such personnel have a broad training in this area. Many procedural problems seem to be evident that relate to lack of such preparation.

Important phrases and findings include:

work programs	occupational training
training courses	unskilled work
cooperative programs	service work
on the job training	birth certificates
counseling	social security cards
employment requirements	know community
work evaluation	incentives
kinds of jobs	chance to experiment
training opportunities	routines
employer needs	transportation
competitive work	pre-vocational preparation
work permits	legal problems
curriculum restrictions	employer restrictions
knowledge of labor market	contacts
school diploma	implication of employment
tricks of the trade	child labor laws
job supervision	work outlooks
personnel training	

Part One Summary

The previous chapters attempted to indicate salient factors involved in vocational success for the educable

mentally retarded. A quick glance of the findings suggests rather unique areas of concern with regard to curricula. Rarely does one find the kind of activities in the schools as evidenced by these reports.

It is realized that much overlap exists in these reports. This was expected, since it is difficult to isolate the non-related elements of each characteristic found by different authors. To be sure, most of these characteristics will be recognized by a concerned teacher or vocational counselor. How these may be implemented is the point of this research.

Part One concentrated on literature reviews and reported research. We shall now proceed to an investigation of selected cooperative programs.

PART II - COOPERATIVE PROGRAMS

During the past ten years the Division of Vocational Rehabilitation Administration of Department of Health, Education, and Welfare has been particularly active in sponsoring local DVR - School District (or DVR - Workshops, Agency, etc.) demonstration projects to determine workability of arrangements, work related programs, and the characteristics needed to help EMR students (clients in DVR teams) become vocationally successful.

The development of cooperative programs has become a major force in the school program. It is probably the first time a significant body outside the educational complex has become so involved. Later Vocational Education, Mental Health, and, indeed, contracting agents, and others have exerted some influence on the EMR educational scene.

DVR-School demonstration programs are relatively new. Most such programs have apparently developed from the original findings of the President's Panel (1962) and have subsequently been organized through federal programs of one type or another. Implication expressed by Ritter (1967), Donaldson (1966), Springfield, Mass. Goodwill Industries (1967), and Burris (1967) indicate successful cooperative programs may operate in such a manner that immediate outcomes for the retarded are beneficial. Each reports a gain

in numbers rehabilitated because of programs working directly with the retarded through DVR. Such programs tend to hold students longer, to be more effective in employment, and to increase the functioning levels.

What follows is a short report on one particular project (RD 1681), (Plue, et al., 1968) in Chapter V and a survey of selected others in Chapter VI.

CHAPTER V

A DIGEST OF FINDINGS IN A SAMPLE COOPERATIVE PROGRAM - RD 1681

While this is not a Southern Region project, it is used nevertheless to demonstrate typical characteristics and, in part, to help describe such programs. Further, findings so indicated have influences on the school EMR population.

RD 1681 was a demonstration project between the Portland (Oregon) School District No. 1 and the Division of Vocational Rehabilitation (in this case, with Goodwill Industries where an adjunctive funded program worked with these two).

The similarity between the states of Mississippi and Oregon are quite evident. In total population, Mississippi is somewhat larger; Mississippi, 2,216,912; Oregon, 2,091,385; (1970 census). Each has one outstanding large city, Jackson, population 153,968, in Mississippi; and Portland, population 380,620, in Oregon. Each has quite a number of 15,000 to 60,000 population cities which make up the total population, with Mississippi having more of this size. Economically, timber-wood products, tourism, small business-light industry, and agriculture make up the dominant sources of income in their stated order. Of course, climate and land features are different, but not nearly as different as one would suspect.

RD 1681 concerned itself with the school population of special education classes. These classes contained certified EMR students. Certification carried out by a set of standards as prescribed by the Department of Education (1956). These standards include the following:

1. a medical examination
2. an individual psychological examination and report
3. an education summary
4. a social summary
5. a developmental history
6. a review by the State Department of Education.

When a student is referred as a possible candidate for the mentally retarded school program, staffings are held in order to determine his eligibility for special achievement placement.

A typical certified student in this study was one who (1) had taken a psychometric examination and had received a total rating of 50-75 on the Wechsler Intelligence Scale for Children; (2) had been given a physical examination which ruled out corrected defects such as vision or hearing as major contributing factors; (3) had a school achievement record of an obviously low level; and (4) had appeared to be a person who would not be able to profit from the regular school program. These students spend about one half of the school day with certified special education teachers. During the remainder of the day, the student attended regular non-academic classes in art, music, shop, physical education, homemaking, etc. This was a policy of the district.

Project 1681 clients consisted of people who were

specifically referred to it and who were accepted for vocational rehabilitation. There were one hundred and eighty-seven educable mentally retarded students who became project clients.

Again, this sample is not unlike those in Mississippi. Certification procedures are essentially the same. Mississippi does not require physical examinations, and each school district makes its own structural organization regarding non-academic classroom scheduling.

The general objectives of cooperative programs are similar nationwide:

1. to increase the number of students among the mentally retarded being prepared for remunerative employment.
2. to develop a coordinated program between special education and Vocational Rehabilitation.
3. to systematize and expand the program of work evaluation, work try-out and work training.
4. to improve diagnosis, placement, and curriculum development for mentally retarded children.
5. to instruct both school teacher and Vocational Rehabilitation counselors in the special knowledge and techniques found effective in working with the mentally retarded.

The design of the RD 1681 project attempted to answer the following questions:

1. What personnel and how many personnel are needed for a program for the mentally retarded (approximately 100 seniors) as determined by demonstration Project 1681?
2. What were the contributions of a social worker to Vocational Rehabilitation project?

3. Does a job placement follow (or coincide) with the information available on a student?
4. What does the follow-up on job placement reveal about curriculum pre-vocational needs?
5. How necessary and adequate is the present medical information required by the school on the vocational rehabilitation client?
6. Is there evidence revealing the necessity of continuing a client on an inactive rehabilitation basis after vocational rehabilitation has been successful in placement?
7. How much client supervision is provided by the vocational rehabilitation counselor?
8. How can the work of vocational rehabilitation be evaluated considering this project sample and dual agency operation?
9. What were the characteristics of the client samples?
10. What does the Goodwill laboratory evaluation tell us about a client that cannot be determined by the school?
11. To what extent is the chronological age of a student a determining factor in work assignments?

The above questions cannot give all the information needed. These questions, however, were supplemented by other reports and studies, each described in Section Three.

For the purposes of this report, it is not necessary to detail every item of the RD 1681 project. Our purpose here is to indicate characteristics for curricula. With this in mind, limited findings will be reported.

Question One is not directly relevant to this overall report. Still, DVR personnel as well as educators in other cooperative programs will have a direct influence on the EMR

student. Because this is the case, the mechanics and direction of such influences become important.

The number of personnel is important. As was indicated to this author in visits to several cooperative programs (Eugene, Oregon; Oakland, California; Phoenix and Tucson, Arizona; New York, New York) and at several conferences and symposium meetings, a major problem in cooperative programs is the communication between DVR and the school district. In general, the work of each is not well known by the other. The DVR counselor and the EMR teacher (or adjustment counselor in DVR terms) are highly specialized areas of work, each requiring unique training.

A certified teacher of the EMR must complete a BS degree. He is especially prepared in this training program in curricula, methods, vocations, communications, etc. All are directed to the individual needs of the EMR. This training and the direction in which it is carried out is "different" and is sometimes at odds with normal educational procedures. The ultimate goal in such education is one of crucial individual attainment geared to eventual vocational competency. Normal school curricula is oft times inappropriate. Regular school personnel who have not had such training often find this curricula difficult to understand. This holds true of DVR personnel also. Seldom do DVR personnel have the training, which seems odd. One would think it wise for DVR counselors and others working with exceptional populations to have some training in these areas.

It is also true that the work of the DVR vocational counselor is little understood, sometimes even by the Division itself. In Project 1681, the following were found to be part of his work with this particular EMR sample:

reviewing school records, reports forms, referral forms, field representative reports, and Child Service student files.

reviewing student school work experience records and medical examination records.

counseling with the out-of-school work coordinator, school counselors, teachers, and students.

writing summaries.

making arrangements for testing.

making arrangements for evaluation.

writing eligibility statements.

staffing for evaluations.

staffing for Project levels.

counseling with clients.

writing case reviews.

making personal arrangements with clients and/or school and family.

writing plans.

training arrangements with Goodwill.

counseling and supervision of training aspects.

communicating with people concerned.

negotiating with employers.

counseling clients.

writing client continuum of plans.

supervising on-the-job.

implementing programs.

job finding activities.

It is obvious that this work is diverse and extensive. However, the nature of the problems and concerns surrounding the EMR population helps account for such diversity. Part One would seem to support this notion.

With regard to personnel, the following were found in RD 1681:

1. The activities of the DVR counselor are diverse and numerous.
2. The individual EMR client represents no simple single system for rehabilitation. (This is important, since it means that standardized procedures in a cooperative program have only limited use.)
3. The EMR student client takes longer to rehabilitate than do normal DVR clients. (This means that immediate job placement should not be normally expected and that all personnel will need to realize that certain types of job maturity will have to be gained before anything worthwhile might take place.)
4. The estimated DVR counselor-EMR client load should be about 30-50/to 1 depending on maturity of program. (It is found that many DVR counselors are given a "regular" case load on top of cooperative program clients. Sometimes this total has been known to be 300 to 1. If the EMR are to be helped appropriately, one finds it difficult to understand this inconsistency.)

Question Two was related to a social worker and social work area concerns. Pertinent to this study were the following kinds of Community Resources used by RD 1681 personnel:

Goodwill Industries
Welfare Department
Juvenile Court
U.S. Employment Service
(YOC)

C-Cap
Red Cross
O.E.O. Community Center
Kaiser Hospital
Family Planning Asso. of Oregon

Housing Agencies
U. of Oregon Medical School
Public Health Office

Reed College Tutoring Program
Legal Aide Society

These resources can be visualized for Mississippi. The names may differ, but the sources will be very similar. Goodwill Industries may be likened to Allied Enterprises, and the medical schools might be interchangeable. In short, that such resources can be used and are available is of importance.

The RD 1681 project had the advantage of a social worker which alleviated the need of someone else doing this kind of work. In fact, with all the responsibilities noted in the previous question, one wonders how many social work activities could be done by the vocational counselor or by school personnel. Depending upon the direction of the client, the social worker became involved in the rehabilitation process through the following activities:

1. on-going counseling work with the family.
2. helping the family organize and rearrange schedules.
3. working with special subtle factors which could enhance the subjects progress, (for instance: bus routes, use of money, "ways of doing things," etc.).
4. supporting work and social influences that may affect jobs or training situations.
5. participating in and promoting activities that would relate to communications within the project.

The field representatives, in some instances, could help counsel clients and families toward realistic personal goals and could provide guidance in social patterns.

To obtain an estimate about the kinds of socially

oriented problems found with part of the Project population, the first 109 closed cases were examined for content. The project and school files gave information of a social nature that might reflect on vocational potential. Table 4 records the instances of "problems" found with this sample. In many samples more than one instance was noted.

TABLE 4
INSTANCES OF SOCIALLY ORIENTED PROBLEMS FOUND IN CLINIC
FILES OF 109 CLOSED CASES

	Instances
Communication (lack of ability to adequately relate to others) . .	32
Lack of parental rapport to the child	25
Poor attitude toward work	25
Poor attitude toward people	24
Over protection by parents	23
Lack of confidence by client	18
Lack of security in home	17
Lack of immaturity	16
Poor appearance	15
Bizarreness	15
Client and/or family overestimate of ability	15
Client and/or family underestimate of ability	13
Parental uncooperativeness to school and project	13
Extreme sensitivity to special education program	11
Juvenile record	9
Talks inappropriately loud	9
Overly verbose	8
Hyperactive	7
Nervousness	5
Sex related problems	2
	302
	M = 2.77

Several of the characteristics shown in Table 4 are closely related. Nevertheless, they give an estimate of the number of instances found and the types of problems associated

with many clients. Table 4 suggests that many kinds of "social service" or "social modifications" may be needed as factors of successful rehabilitation.

The socio-economic level is often associated with the amount of necessary social work. It has been pointed out that poverty and social conditions bring a need for social work because of the many problems inherent in relationships with general society.

To estimate the socio-economic status of the first 154 clients to Project 1681, a review was made of client files. Using a figure of less than \$4000 annual income as low and a figure above \$8000 as high, an estimate could be made from information on school intake records and client social summaries. In several instances, the quoted figures were modified due to the number of children in a family or the particular situation found.

TABLE 5

SOCIO-ECONOMIC ESTIMATES OF THE FIRST 154
CLIENTS OF PROJECT 1681

	Female	Male	Totals	% of Total
High	3	1	4	2.6
Middle	55	37	92	59.7
Low	29	29	58	37.7
Totals	87	67	154	100.0

The information in Table 5 estimates that over one-third of the project clients will come from an environment

of a low socio-economic level. This suggests the need for the existence of a social worker, if it is assumed this factor is highly correlated with social work needs.

With regard to social area concerns, project RD 1681 noted the following:

1. There are several social forces that seem to be involved in vocational habilitation or rehabilitation for the EMR. (This, of course, reaffirms Chapter III's findings, but the importance here lies in the suggestion of other personnel to get the EMR student "hurdle help" over social problems, some of which are situational.)
2. Several community agencies could help in the rehabilitation process.
3. About 1/3 of the client population comes from a low socio-economic environment. In this project, the 1/3 figure may be a low fraction when compared to other geographical areas. It is not a new finding and has been reported often, but it does suggest that any curricula must adjust to a significant number of the EMR students having to work with the framework of low income and, therefore, having to provide their own services (like house repair, etc.).

Question Three was related to job placement being based upon known information or work abilities of the EMR student. This is a highly complex but relevant question. Much depends on the many variables which could possibly influence the rehabilitation process. For instance, the job "climate" might influence the kinds of placements. Whether a community is in an area of high or low employment, if a community is largely based upon one type of economy (farming, shipbuilding, etc.), or if the employers "attitudes" are essentially negative or positive have direct influence on job acquisition. Further, the school personnel's completeness,

or emphasis in record and data keeping will determine in a large measure the "known information" useful to rehabilitation of the EMR. As will be seen later, specific job holding data is presented which will indicate several kinds of job possibilities that have curricula relatedness.

For project 1681, several kinds of data input might be pertinent for overall understanding. A review was made of two groups of closed cases: those rehabilitated ($N = 65$) and those not rehabilitated ($N = 51$), both on an "as-of-when-placed-on-a-job-and-to-the-particular-job" basis. This was an attempt to distinguish between the two groups on estimates of certain parameters that might be important to successful rehabilitation and that could utilize information. The following table does not include clients who married and did not seek employment nor does it include those who simply moved from the school district.

Of 65 placements made by the project, Table 6 suggests that information about the client was advantageously utilized in job placements. In the 51 opportunities which did not rehabilitate and whose jobs were not counseled through the project, information appears to be less appropriately utilized. Specific factors that appear to be different are the counselor's support of the work, the social fitness of the individual to the job, the client's respect for authority, the client's acceptance of criticism, the client's appropriateness of behavior in working with other employees, and the client's work habits. In addition, one's

appearance and attendance, the job market and the appropriateness of training influence differences between groups.

TABLE 6
CHARACTERISTICS OF JOBS AND CLIENTS TO
EMPLOYMENT OPPORTUNITIES

Factors	Rehabilitated (N = 65)		Not Rehabilitated (N = 51)	
	Yes %	No %	Yes %	No %
1 - Client Support	96	4	91	9
2 - Counselor Support	98	2	75	25*
3 - Aptitude Fit	85	15	70	30
4 - Social Fit	98	2	71	29*
5 - Respect for Authority	82	18	48	52*
6 - Accepts Criticism	79	21	36	64*
7 - Appropriate Behavior	93	7	57	43*
8 - Good Work Habits	98	2	68	32*
9 - Good Appearance	87	13	64	36*
10 - Good Physical Makeup	92	8	93	7
11 - Good Attendance	92	8	55	45*
12 - Union Entrance	8	92	25	75
13 - Apprenticeship Needed	5	95	9	91
14 - Test Required	4	96	4	96
15 - Speed Needed	75	25	79	21
16 - Public Contact	28	72	43	57
	Good	Medium Poor	Good	Medium Poor
17 - Openings	23	62 15	25	39 36*
18 - Appropriate Training Fit	52	33 15	10	50 48*

a - eye-hand coordination, dexterity, etc. b - interpersonal relationships. c - rapport with fellow workers. d - attention to work. e - similar training to job, WAT, or OJT, etc.

* $P < .01$

Of 65 placements made by the project, Table 6 suggests that information about the client was advantageously utilized in job placements. In the 51 opportunities which did not rehabilitate and whose jobs were not counseled through

the project, information appears to be less appropriately utilized. Specific factors that appear to be different are the counselor's support of the work, the social fitness of the individual to the job, the client's respect for authority, the client's acceptance of criticism, the client's appropriateness of behavior in working with other employees, and the client's work habits. In addition, one's appearance and attendance, the job market, and the appropriateness of training influence differences between groups.

It is interesting to note that jobs requiring public contact, union entrance, apprenticeship, and testing tend to be avoided or, perhaps, circumvented. Client support, the physical makeup of the job, and the need for speed were similar for both groups.

Another source of information relating individual clients to work potential was available school files and statements made by teachers and school-work coordinators. Information about classroom activities and work experience gave clues to the work potential.

With regard to work potential, two kinds of information might be useful for decision making. The first area gave data in regard to school achievement that would relate to employment. Such factors as academic work, sociability, physical education, and communications in classroom activities could help in the decision making-counseling process.

A second area regarded as informative was evaluative information concerning in and out-of-school work experiences.

Data concerning work habits as they relate to employment could prove invaluable. Factors might be those relating to aptitudes (coordination, dexterity, etc.), sociability on job, communicational ability during work and an estimate of the worker's motivation to work.

A review of school reports was made to determine if the above characteristics were given. Table 7 reports this data in terms of percentage of times a factor was reported. The sample consisted of 135 closed cases listed in Table 7.

TABLE 7
PERCENTAGE OF TIMES WORK INFORMATION WAS REPORTED
IN SELECTED SCHOOL RECORDS OF 135 PROJECT
1681 CLOSED CASES

1 - Report of academic achievement	67.4%
2 - Report of sociability in classroom	88.3%
3 - Report of physical education ability	13.9%
4 - Communicative ability in the classroom	60.4%
5 - Estimate of work aptitudes (coordination, dexterity, etc.)	9.3%
6 - Social behavior on work experience	81.3%
7 - Communicative ability on work experience	55.8%
8 - Estimate of motivation toward work	34.8%

There appear to be several surprising features of data reported in Table 7. Emphasis in reporting seems to be socially and academically oriented and appears appropriate for estimating some work potentials. Much less information is offered about physical characteristics (motor involvement) as it relates to future employment. Furthermore, information regarding school academic achievement, communications, and motivation toward work was apparently not consistent.

Table 7 suggests, however, a better system is needed for work information as it might relate to future employment.

The kinds of jobs and training for work in broad terms would be pertinent information about client employment. Table 8 lists the kinds of employment of 66 closed rehabilitated cases. The table further suggests how compatible, how fair, or how poor the training given for the client on the particular job. Training could have been in or out of school experience or with Project 1681. In addition, an estimate was made of the openings available in the particular work area and which was related to the community and "climate" of this employment at the time the work began.

The data in Table 8 indicates that school or project training was many times compatible to employment for this selected sample. The data on openings reflects the nature of the employment structure in the community. Time and place apparently does not play a large role with this group.

In this project, it was found that males in job situations earned more on the average than females. Undoubtedly, "kinds" of jobs influenced this finding.

Another point of view, with regard to question three, is that it is better to "educate" the EMR in a variety of job situations so that a "transfer" can be made to the "real" job. This solution is possible, but it is not supported by research where "details" are concerned.

Important considerations relative to training and job placements includes the following:

TABLE 8

KINDS OF EMPLOYMENT AND THEIR RELATIONSHIP TO
TRAINING AND OPENINGS OF 66 SELECTED
EMPLOYED CLIENTS

Job Area	N	Training			Openings		
		Comp.	Fair	Poor	Good	Fair	Poor
Busboy	5	3	-	2	5	-	-
Waitress	4	4	-	-	4	-	-
Food preparation	3	3	-	-	3	-	-
Delivery	3	-	3	-	-	2	1
Maintenance	8	6	1	1	6	2	-
Forestry	2	-	1	1	-	2	-
Car detailer	2	2	-	-	-	2	-
Construction	4	1	1	2	-	2	2
Automotive parts	1	-	1	-	-	1	-
Custodial	4	4	-	-	3	-	1
Grinderman	1	-	-	1	-	-	1
Dental aide	3	3	-	-	-	2	1
Burner	1	-	1	-	-	-	1
Photo-developer	2	-	2	-	-	-	2
Small appl. repair	1	1	-	-	-	1	-
Locker boy	1	-	-	1	-	1	-
Sorter	4	1	3	-	2	2	-
Assembly	5	3	2	-	3	2	-
Power machine	4	4	-	-	2	1	1
Laundry	2	-	2	-	-	1	1
Office clerk	2	2	-	-	-	1	1
Nurses aide	2	2	-	-	2	-	-
House service	1	-	1	-	-	1	-
Beauty operation	1	1	-	-	1	-	-
Totals	66	40	18	8	31	23	12

1. Differences are evidenced in several factors relating to information between rehabilitated and non-rehabilitated clients.
2. Cumulative records which are associated with the world of work are limited by useful information reported.
(An important consideration here is that school personnel need to be oriented to work dimensions.)
3. Job opportunity and the economic climate of a community

are important factors. We suggest that each community needs to be not only aware of the economy of its location, but also of the details by which this economy is functioning.)

Question Four was to discern what happened to former EMR students who had graduated from school in the past eight years. Many had still not found work but most, usually 50% to 70%, were employed. Most of the girls had married, and many could not be located. This suggests a mobility or movement factor. Interestingly, the students who were involved in a cooperative program showed less job changing than others.

Estimates were made from curriculum objectives to ascertain whether these objectives were crucial in such planning. The curriculum objectives were grouped for "successful" clients (meaning that they were holding a job and had done so for at least three months and that the employer had indicated that the client is doing well). Conversely, the "unsuccessful" client was one who could not meet the above criteria but did have one or more jobs while he was a client. The comparison did not include marriage, moving, etc. as a consideration; only those clients who actually worked in an employment situation were part of the sample. Estimates were made of 35 "successful" and 28 "unsuccessful" clients. The data was examined statistically by chi-square contingency table to indicate a degree of differences between groups (Garrett, 1960, pp. 264-265). An * indicates an .01 level

statistical difference, ** indicates an .05 level, and *** indicates an .10 level of statistical difference between groups.

Table 9 suggests that those who appeared successful in employment situations and that were different from unsuccessful groups were those who developed some personal and interpersonal habits that were compatible with the employment situation. Good observation ability, honesty, and reliability supported by related factors seem to be characteristics that discriminate between the employed. Client attendance practices and respect for other's rights and property support the successful. A client's acceptance of his own limitations helps his job-holding abilities.

A supervisory factor is apparent. Curricula competencies were well recognized by the employers. Characteristics relating to adjustments of rules and regulations, "break" privileges, the employer, and coping with criticisms are discriminating factors in this sample. Employment practices associated with production pressures, assigned tasks (especially those that may not have been specifically part of the job description), loyalty, and independent working ability are factors that seem to relate to overall supervision areas, and which from Table 9 suggest significant differences.

Interpersonal relationships that include cooperation with fellow workers, distinguishing between work and play, coping with distraction, and respect for others are other discriminatory characteristics.

TABLE 9

A COMPARISON OF SELECTED CURRICULUM OBJECTIVES
TO SUCCESSFUL AND UNSUCCESSFUL CLIENTS

Objectives	Groups			
	Successful Yes	No	Unsuccessful Yes	No
(1) grooms and dresses suitably for different purposes.	28	7	11	6
(2) shows willingness to work at tasks needed to be done.	30	5	12	13*
(3) strives to be honest.	33	1	15	10*
(4) strives to be reliable.	33	1	10	15*
(5) shows consideration and respect for others.	32	3	15	12*
(6) expresses emotions appropriately.	18	16	10	14
(7) accepts his limitations.	20	14	5	18*
(8) aware of when and how to seek assistance.	19	16	12	14
(9) meets and talks with people confidently.	19	16	14	12
(10) accepts and copes with criticism adequately	22	13	6	16*
(11) adjusts appropriately to rules and regulations	33	2	8	17*
(12) respects the rights and property of others.	30	--	15	4*(a)
(13) manifests a loyal feeling to one's company.	19	6	8	10**
(14) responsible for supplies and equipment.	25	1	15	4***(a)
(15) assists in the performance of household duties.	16	11	12	7
(16) manifests a loyal feeling for family.	23	5	12	10**
(17) responsible in use and care of one's possessions.	25	--	18	2

TABLE 9--Continued

81

Objectives	Successful		Unsuccessful	
	Yes	No	Yes	No
(18) participates in family leisure and recreational activities.	15	2	7	5*** (a)
(19) competent in traveling alone.	32	2	28	--
(20) familiar with physical and geographical features of community.	29	4	23	1
(21) gives attention appropriately.	18	8	10	13***
(22) copes with distractions.	19	15	6	18**
(23) uses appropriate facial expressions.	28	7	17	8
(24) can verbally explain things.	25	10	20	5
(25) uses words correctly in conversation.	27	8	21	5
(26) can make use of the newspaper.	18	13	5	12***
(27) interprets schedules (bus, etc.)	18	13	12	9
(28) drives a car	15	20	4	20
(29) can fill out written forms correctly.	14	19	8	15
(30) possesses a meaningful arithmetic vocabulary.	19	13	9	14
(31) can make change.	28	2	20	5
(32) can tell time.	34	1	24	2
(33) can tell distance.	24	8	20	3
(34) can tell amounts.	16	13	7	11
(35) can estimate figures.	6	18	3	14
(36) appreciates any kind of art work.	11	12	3	17**
(37) is courteous.	32	2	23	4
(38) cooperates with fellow workers.	34	1	14	8*
(39) distinguishes between work and play.	31	4	6	16*
(40) adheres to break privilege time schedules.	32	4	10	12*
(41) has good attendance in work.	32	2	15	9**
(42) has confidence in work ability.	31	3	19	5

TABLE 9--Continued

Objectives	Successful		Unsuccessful	
	Yes	No	Yes	No
(43) has good eye-hand coordination.	26	8	11	12**
(44) has good dexterity.	24	10	11	12***
(45) has good performance speed.	19	15	10	12***
(46) can alphabetize.	15	8	15	6
(47) relates well to supervision.	30	4	13	10*
(48) can work independently.	28	6	8	15*
(49) has tolerance for production pressures.	23	5	4	17*
(50) can discriminate between forms.	15	8	9	8
(51) observes well.	16	8	5	12**
(52) can use work tools.	25	--	19	1
(53) washes and bathes regularly.	27	6	12	12*
(54) makes attempt to be physically fit.	23	7	13	11***
(55) has general family support.	24	8	10	13**
(56) liked by peer groups.	23	2	14	3

Other factors relating directly, or indirectly to the above characteristics are the client's family rapport and support to work stations, personal health practices, and eye-hand coordination. It is interesting to note how closely these estimates agree with the studies of Kolstoe (1961) and others. In all, this follow-up tends to agree with the principle that rehabilitation for the retarded, as judged by this sample, offers no simple solution. Further, most

results suggest the imperative need for supervision at many levels and in several areas of concern.

Another interesting study was personal interviews made by the staff social worker of thirty former clients who had been successfully employed a minimum of five months. An attempt was made by means of a scheduled interview to gain information of a personal nature concerning several implied characteristics in Table 9. Those interviewed represent a sample of clients (N = 30) who are employed successfully.

When asked about friends, this sample indicated they had people whom they could call a friend (only one did not so indicate). Usually they said "lots" when asked numbers and the response "a few" gaining the second most frequency. When asked "why" they had friends, most responded with non-definitive phrases like, "I'm friendly," "I get along," "We just get together and talk," "People are nice to me," and similar expressions. Most "friends," however, were co-workers at a place of employment. Further, this sample regarded their association with people in a positive manner suggesting an easy rapport and a genuine liking to be around others.

When asked about family living, it was found that two of this sample were maintaining their own household. Eighty per cent made a positive response to living at home and responded, "Mom's a good cook," "We get along well," "Home is a warm feeling," "I want to wait awhile," "I wouldn't make it on my own," and "I want to earn more money

first." These last responses apparently suggested a maturity in thinking about self sufficiency. Of the negative responses (N = 6), four indicated they were "picked on" by members of the family; while two said they would like to get away because the parents argued.

When asked about problems of the city, nine answered with concerns of the Negro, riots, and people's not getting along; four talked about pollution. Nationwide concerns were evidenced by discussion of the Viet Nam conflict, riots, crime, taxes, and recreation areas. Still 33% gave "I don't know" answers of national concern suggesting that those in this sample had knowledge of and were forming opinions about local matters.

Most of this sample indicated they read the newspaper and read magazines of several descriptions. Nine individuals indicated they "wanted to find out what's going on" when asked why they used these materials. A few indicated they have their mother help them in some reading matters. Help was evident in tax returns, and about 80% said theirs had been done.

Twenty-eight of the subjects had a savings account, and three had an additional checking account. Half of the sample are or were buying something on credit; however, a few were doing so on parent credit cards. Most gave good thought to their spending habits and had responsibilities such as room and board. Approximately 50% budgeted money and planned

how they would use income. Clothes, bus fare, and bills were frequently mentioned items that were to be budgeted.

Fifty per cent of these subjects indicated they had recently repaired or made something. No one single item seemed to be named; and the list included bed sets, TV, stereo, clothes, radio, lamps, and cars. Seventy-five per cent had lost at least a day's work due to illness and said they stayed home and rested, while two said they went to the doctor. Ninety-five per cent said they had a family physician, and most had some kind of health insurance.

With respect to "free time," most subjects indicated that watching TV, doing chores, seeing friends, and walking occupied their leisure time. Eight subjects said they belong to a church, but no other "group" activity was mentioned. Recreational activities were discussed, and twelve mentioned spectator sports--mostly on television. However, nineteen said they participated in sports activities with bowling, swimming, and ice skating mentioned most often. Outdoor activities, such as golf, hunting, camping, or fishing, were indicated but once.

The information collected from interview schedules suggests close agreement with the successful clients of Table 9. Rapport with people, a good self-concept, adequate family relations, and the ability to generally function as a citizen tended to be characteristic of this sample.

Follow-up studies suggested the following considerations:

1. Training shows a positive relationship to employment.
(This includes the dimension of the school curricula and the sophistication of such programs.)
2. Data suggests that curricula areas which are complex and which make absolute priorities difficult to assign. (However, indications are that some dimensions as they relate to work are particularly important in EMR populations. It is interesting to note that only one item (#26) from Table 9 relates directly to reading.)
3. Job changes are a factor just as in "normal" samples.
4. The trend of job finding is becoming more influenced by school-DVR programs.
5. The data suggests that curricula areas are complex and that it is difficult to assign an absolute priority to them. The ability to carry on good interpersonal relationships, clear communications, adequate work relationships that include supervisory concerns, "pace" of work, aptitudes, and appropriate family and personal characteristics seem to favor those that tend to be successful in employment.
6. There appears to be a need for many of the retarded to have "help" at times beyond school graduation.
7. The EMR graduates, of this sample, give indications of difficulties in routine matters of "what to do" and "where to go" with leisure activities, travel, and many governmental and business operations (particularly credit).

Question Five was concerned with medical considerations. In this research each of the clients had a medical examination as part of the program. It was found that such examinations were important. If this sample is typical, about 23% would be expected to have limiting factors other than retardation. Uncorrected vision, dental, and skin problems were most evident.

The dental and skin disorders could be directly related to appearance, which was shown to be significant previously. The vision, especially if uncorrected, could limit the ability to work. Therefore, medical examinations should not be overlooked as a possible important vocational factor.

Question Six was designed to determine whether a longer follow-up was needed even if a case was determined successful. In the RD 1681 research, about 30% "closed" clients had job turnovers. About 60% of this turnover was due to better jobs or marriage, and the remainder was due to firings and lay-offs. These findings suggest the need for some means of the return for those who need help or for training in job seeking abilities.

The Seventh Question investigated the amount and kinds of supervision needed. The important supervision was direct contact, which suggests the need for expressive language training.

Question Eight related to the work of vocational rehabilitation in the cooperative program. While the findings

here were most pertinent to the specific location, some information should not be ignored. Time and again, it has been demonstrated (RD 1681; Deno, Minneapolis, Minnesota, 1965 in visitation to cooperative projects in Phoenix and Tucson, Arizona; Oakland, California; New York, New York, etc.) that the school and vocational rehabilitation must be in close proximity and that a communication gap will exist if one does not understand the work of the other. In addition, it is difficult to understand how communications can exist when the training of vocational rehabilitation counselors (and Vocational Education personnel or teachers who teach home economics and industrial arts classes specifically to EMR populations) lack one course in Special Education--the very population by definition with whom this personnel works in educational and vocational matters. The converse of this is also true. The Special Education teacher normally lacks any course work in rehabilitation counseling.

The mechanics of operation and the administration of programs are crucial to program operations. Again, a system must be devised that will most help the EMR student. One such structure which incorporates communications and structure is shown as follows. The figure can be modified according to size of agencies, but the elements are important to good programs. The following are important considerations:

1. Guidelines and operation will be variable depending upon the environmental setting, and DVR (and DVR

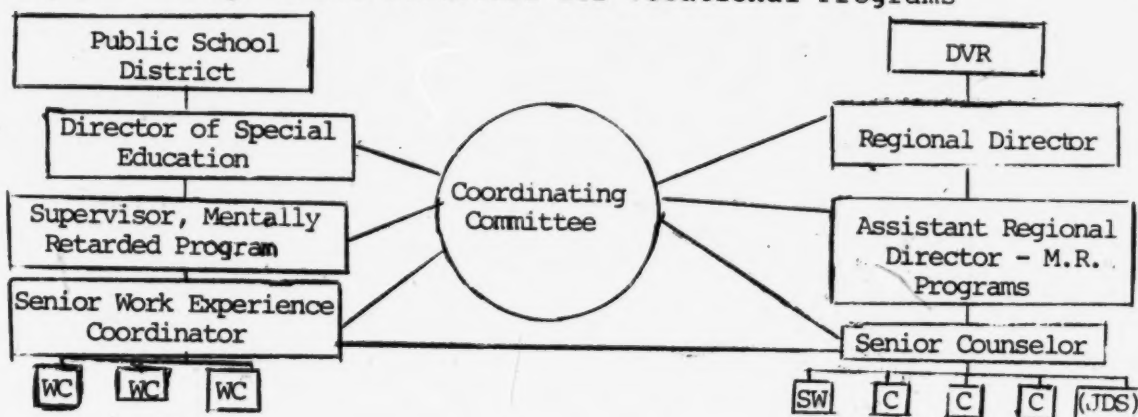
counselors) and school districts (and staff) will need to modify some of the characteristics of their agencies.

2. The work of the DVR counselor is facilitated by close proximity to his client's records and sources of information.
3. The DVR counselor can close the communication "gap" by assuming a leadership role in vocational concerns for the retarded; and the school district should provide for this kind of opportunity.
4. Agencies dealing with mental retardation must continually reassess evaluative procedures in rehabilitation efforts which might affect the working environment of counselors and those concerned with vocational programs.
5. School districts need to continually evaluate counseling techniques in vocational programs for the retarded.
6. New and innovative means will be needed to help clients of poor vocational potential.
7. School Counselors and DVR counselors need a strong orientation in the areas of the retarded and vocational characteristics as they might relate to them.

Question Nine defines characteristics of the project sample. This concern has been discussed in previous chapters, and nothing peculiar was found. IQ scores tended to be near 68, and no difference was found between rehabilitated or non-

rehabilitated, or male and female although "workshop" employables were excluded.

Figure 2--Cooperative Structure for Vocational Programs



About one-third of the population was born outside of the state of Oregon; and over 40% had only one parent in the family, which suggests incidence of divorce, death, and parental movement.

While in school, observations were made of clients as to their "attitude" toward school. This took the form of recorded writing in year-end reports for all students in special classes. In addition, written information was recorded of each person's "attitude" toward vocational training and/or work as a client of this project. While this information contains subjective judgments, it represents the observation of trained personnel and may be considered a type of client "nature."

If "attitude" is defined as a behavior toward environment since it displays a manner of acting, feeling, or thinking that shows one's disposition, a tabulation can be

made of "attitude" estimates. The results of such estimates are shown in Table 10. Phi coefficients (Garrett, 1958, pp. 388-391) for (1) Rehabilitated clients were estimated at $r = .276$, while (2) Non-rehabilitated clients were estimated at $r = .0546$. When Table 10 is reviewed, this data tentatively suggests "attitude" in school is likely to carry over into the vocational program and gives a slight indication that some clients, particularly the rehabilitated group, tend to have more favorable "attitudes" toward work situations. This data, however may be quite limited.

TABLE 10
ESTIMATES OF CLIENT'S "ATTITUDES"

	In School		As Project Client		N
	Good	Poor	Good	Poor	
1 - Rehabilitated Clients (Closed)					
Male	20	13	28	5	33
Female	16	9	22	3	25
2 - Non-rehabilitated Clients (Closed)					
Male	8	14	9	13	22
Female	16	17	18	15	33

To help summarize the concerns of Question Nine, information was utilized from previous data. Tables 5 through 9 helped localize specific characteristics that were felt to be pertinent. The following list was considered:

1. Approximately 30% of the project clients had birth-places outside of Oregon.

2. Approximately 50% of the project clients were the first or last born in their respective families.
3. Approximately 40% of the project clients did not have both natural parents in their family.
4. Many aptitude and vocational tests appear inappropriate for use in retarded samples.
5. The General Aptitude Test Battery in general is an appropriate instrument for the measurement of basic work aptitudes in this retarded sample.
6. There are indications that some work aptitudes may be remediated to provide better functioning.
7. The project clients usually attain an academic achievement level of approximately 5.5.
8. There appears to be a close relationship between "attitude" in school and success in vocational situations.

In reviewing this particular project, it should be remembered that it was only one of several. Still, nearly 200 EMR students were involved; and there is no reason to suggest this project was atypical. For the purposes of this study, it was possible to learn several possibilities for curricula design. In addition, several mechanical features seemed important that could better facilitate vocational learning. These can be summarized as follows:

A. Curriculum Characteristics

1. Continuous development is needed in job areas appropriate to the client's capabilities.

2. Evaluative vocational information needs to be kept on each individual on a developmental basis.
3. Specific work information, including what, where, and why of particular experiences helps guide and rehabilitation efforts.
4. Work tryouts, work experience, evaluation, and work samples are effective means for diagnosis and for developing rehabilitation.
5. Students and/or clients need help in their development toward normal maturity which may increase through vocational development programs.
6. Diagnostic information helps in programs for individual rehabilitation efforts.
7. There is evidence to suggest that particular efforts should be made in developing "attitude" and "aptitude" areas in the special education program.
8. Curriculum concerns for a developmental program should be based upon student experiences.
9. Work programs call for the highest degree of co-operative planning among the professional staffs in programs for the retarded.
10. The key to communication appears to be one of involvement in many activities specifically relating to the progress and plans of the individuals.
11. Work programs must be planned and operated for individual clients and must be operated and planned on an individual basis.

12. It is important that teachers and counselors alike become involved in rehabilitation plans.
13. Employability and problems of work must be constantly reviewed and kept current with each individual.

B. Structural Characteristics

1. A "coordinating committee" seems to be an appropriate means to facilitate and help administer a cooperative program.
2. A school-DVR program greatly benefits and influences retarded clients.
3. The "rehabilitation plan" seems to be an appropriate technique and should be continued with modifications to include the school and client EMR population.
4. Staffing among school and DVR personnel should continue on a regular basis. This is necessary for making referrals, developing programs for individual development, and experiencing common concerns. This may include direct conferences with teachers.
5. A social worker and job development specialist can add a meaningful dimension to the rehabilitation effort.
6. Facilities for the school-DVR program should be together.
7. Clients should be continued on a rehabilitation

basis for a period of years after the case is closed, and a periodic follow-up should be made. Present DVR regulations would have to be changed in order to support this.

8. The school-DVR counselor guidance helps to increase the job finding effort more appropriately than self-efforts.
9. Job placements are aided and have more holding power when influenced by the counselor and when based upon supervisory and evaluation information.

CHAPTER VI
REVIEW OF SELECTED COOPERATIVE DEMONSTRATION
PROGRAM

In Chapter V, emphasis was placed on one cooperative project. This chapter will simply digest several final reports of such programs. An attempt is made to indicate those indices pertinent for curricula.

Establishment of a Vocational Evaluation-Work Adjustment Unit. Springfield Goodwill Industries, Inc., Springfield, Massachusetts. February 1, 1967.

The Springfield Goodwill Industries and the Office of Vocational Rehabilitation entered into agreement to establish a multiphased demonstration research unit for the vocational evaluation of the severely disabled, the mentally retarded, and the emotionally disturbed individuals. This report covers the operation of this unit from March, 1962 until April, 1966.

Significant Findings

1. The results of the four year existence of this project indicate that the presence of such an activity can have a profound effect by infusing an increased rehabilitation orientation and by infusing an acceptance of rehabilitation concepts in the parent organization and its personnel.

A. This project contributed to the development of new programs for the habilitation of the youthful offender and the task of training for the severely retarded.

B. It contributed to the development of a cafeteria and an automotive repair shop and to the expansion of the sub-contract shop.

C. It resulted in the expansion of the Goodwill Rehabilitation staff.

2. It was found that because of the educational and intellectual level of many of the referred clients, the simulated work tasks had to be simpler than those that were currently utilized in other rehabilitation projects. No reliance could be placed on written instructions. All tasks had to be worked out for verbal instructions and demonstrations.

3. It was found that for many of the severely and multiply handicapped clients, the personal adjustment-work adjustment program provides a prolonged work experience in a rehabilitation setting, which allows them to gradually internalize those motivations and to develop the characteristics that make a good worker.

4. The existence of the unit within the larger environment of the Goodwill Industries workshop has indicated the value of carrying on such rehabilitation activities in an industrially oriented, realistic work atmosphere.

A. It has helped emphasize the value of monetary rewards as an incentive and rehabilitation tool.

B. The unit's experience has emphasized the importance of an intensive, well-coordinated and followed up placement program.

C. It has shown the remarkable extent to which clients in a very low IQ range can improve in social and occupational adjustment when they are trained in a realistic adult work setting.

A Work Experience Program for the Mentally Retarded in Their Last Year in School. Goodwill Industries of Oregon, Portland, Oregon. November, 1967.

The investigation was supported by a Demonstration Grant from the Vocational Rehabilitation Administration of the Department of Health, Education, and Welfare in Washington, D.C. with cooperation of Goodwill Industries of Oregon. The purpose of this demonstration project was to involve itself in a program of work evaluation and work experience concurrently with the academic program of the Special Education Department of the public schools.

Significant Findings

1. It was found that for a number of special education students, facilities such as a sheltered workshop were the only resource open for rehabilitation planning.
2. For most of the retarded the necessity of learning good work habits is primary. Learning good job skills is secondary.
3. Group counseling, whatever the degree of therapy employed, can be a useful adjunct to rehabilitation planning.

4. Case management is the most effective method in rehabilitation planning.

5. Placement and job success are directly related to job opportunity.

6. Many standardized psychological tests of minimal value in assessing the present and potential function of retardates.

7. Generally, the majority of retardates see themselves as failures, having experienced very little success in any worthwhile endeavor. The work adjustment training program allows these students to achieve other successes within realistic limitations. It has allowed the opportunity to encourage these youngsters to use their assets and to push into the background reminders of what they cannot do.

8. There is an inter-dependence between production and rehabilitation in the sheltered workshop setting.

9. For the retarded, and especially for the severely retarded, there needs to be more consideration of lower earning capacity by wage and hour authorities.

Albizu-Miranda, Carlos; Matlin, Norman; and Stanton, Howard R. "The Successful Retardate." Hato Rey, Puerto Rico, March, 1966.

The Division of Vocational Rehabilitation of the Department of Education in Commonwealth of Puerto Rico and the Vocational Rehabilitation Administration of the Department of Health, Education, and Welfare in Washington, D.C. entered

into a joint research project to study the differential characteristics of successful and unsuccessful retardates in search of clues which would aid in the vocational rehabilitation of adults with subnormal intelligence. The specific aims of the study were to determine (1) the proportional distribution of successful retardate careers and (2) the processes accounting for success or failure.

Significant Findings

1. Measures of self-image in this study of Puerto Rico's retardates show that a self-image is more negative in rural areas and among the retarded. The negative self-image carries over into an inability to take advice.

2. The successful retardate in the complex society earns more than the successful retardate in a traditional society, but the proportion successful has dropped from 75 per cent to 60 per cent.

3. Education is not a completely independent variable. In order to get some idea of the effect of education, the researchers had to control for intelligence. When this was done, they could see that both intelligence and education contribute to an increase in the probability of success.

4. Retardation is a disadvantage, but it is not equally handicapping in all types of communities. In peasant and plantation communities, the handicap is present statistically, but is small enough not to be noticed on an individual basis. In urban areas education makes a difference even for the retarded. Retardates with four years or less of

of schooling have a failure rate of 50 per cent. For retardates with more schooling, the failure rate drops to 30 per cent.

5. According to this study, retardates receive less financial assistance than normals. Authors concluded that lack of financial help must be based on the retardates inability to get help rather than their need to receive help.

Rehabilitation Services for Educable Retarded Students.

Eugene School District Number Four in Lane County of Eugene, Oregon. State of Oregon's Division of Vocational Rehabilitation under the Department of Education, Salem, Oregon. December, 1966.

The Division of Vocational Rehabilitation and the Eugene School District were equal partners in this three year project which concerned itself with the task of integrating vocational rehabilitation services into the secondary level of the special education program. The objectives in the education of these mentally retarded students was to make them competent in all areas of adult functioning, but its particular emphasis was helping the mentally retarded to make a good vocational adjustment.

Significant Findings

1. A strong special education program includes a planned curriculum which covers the total life adjustment of the student, is coordinated from the primary grade level through high school, and stresses the needs of the individual student.

2. Teachers can relate and coordinate the students' classroom activities and work experiences if the teachers take an active role in job supervision and evaluation.

3. Diagnostic information about the total child and an analysis of community work experiences can be used to develop individualized programs for maximum student growth.

4. The use of IQ scores alone is not an accurate predictor of those students who need and who can benefit from work experience programs.

5. Retarded students have good work potentials and most of them can learn to be competitive workers if they have the right jobs, if they have gained satisfactory social adjustments, and if they have gained sufficient maturity.

6. Work experiences need to be planned on a developmental basis which includes increased student responsibility and independent action. This is accomplished through required rotation on work experiences.

7. Supervision is the key to successful placement. Good supervision involves (1) visits to the job that are timed according to the needs of the student, (2) training goals that are known to the student and the employer, and (3) evaluations that are done with the participation of the employer, student, and teacher.

8. Parents are essential allies in the operation of the program; school personnel cannot work in isolation of the child's total environment.

The Predictive Assessment of the Adult Retarded for Social and Vocational Adjustment. Department of Psychology of the University of South Dakota in Vermillion, South Dakota, 1969.

This project was supported by a grant from the Vocational Rehabilitation Administration of the U.S. Department of Health, Education, and Welfare. It was originally assigned to Teachers College of Columbia University but was transferred after one year to the University of South Dakota. The project included an evaluation of the results of a number of projects supported by VRA dealing with the whole problem of predictive assessment of the retarded for adult adjustment. Seven major studies of a multivariable nature are included in this report.

Significant Findings

1. The authors point out that if there is one clear conclusion from the array of studies reviewed in this publication, it is that no simple formula for predicting adult success has been found in terms of the personal, the social, and the vocational facets of the retarded.

2. Through the criteria of employment, marriage, and law-abiding behavior, studies over fifty years have shown that a high proportion of those identified as mildly retarded make satisfactory adjustment. Without any special service or treatment, they tend to disappear into the general lower class population from which they are hardly distinguishable as a social group.

3. Attempts to establish the determiners of success

have been unproductive because merely remaining outside the institution has been equated with positive adaptation to the community.

4. The variables which determine the success or failure in the individual who has been through the vocational rehabilitation training in the institution are not yet understood or determined.

5. The attempts to predict adult adjustment directly from school age assessments of such functions as the IQ or academic achievement are largely fruitless.

6. One study shows the differential effects of special school intervention, not as academic but as social-vocational training. It also reflects the interaction of the educational variables with socio-economic factors.

7. Retarded groups show a higher incidence of marital, civic, and occupational failure than non-retarded groups especially in the early stages; but this difference tends to diminish over time.

8. In the studies under review, the problem of defining and measuring the criteria of adult adjustment has been approached but by no means resolved.

9. The most stable predictive indicators of all the ones evaluated have been measures of manual dexterity to criteria of work competence. Dexterity measures have been found to be extremely stable by the fifteenth year. The attempt to establish predictive validity in measures of

personality and social behavior has been far less successful than with measures of motor efficiency.

10. It has been extremely difficult to determine what predictive validity, if any, intellectual measures have for the adult adjustment of the retarded. The ability of institutional residents to remain in community placement cannot be predicted from IQ.

Stephens, Will Beth and Peck, John R. "Success of Young Adult Male Retardates, The CEC Research Monograph, 1968.

The research cited in this article was supported through the Cooperative Research Program of the Office of Education under the U.S. Department of Health, Education, and Welfare. The authors have attempted to evaluate the personal, sociocivic, and vocational success of mentally retarded youths and to determine the predictive value of related personality and cognitive variables. The purpose of the research was set forth in four questions:

1. Upon what did the success of male educable mental retardates depend?
2. What cluster of personality and cognitive attributes existed in successful male retardates?
3. Did subjects who had habilitation training achieve greater success than those who had no training?
4. Were graduates of certain habilitation training programs more successful than graduates of other programs?

Significant Findings

1. Efficiently performing, socially oriented, satisfied retardates tended to perform well in vocational, socio-civic, and personal success areas.

2. Some retardates attained limited vocational success without comparable performance in personal and socio-civic realms.

3. Failure performance was characterized by rebelliousness, unemployment, and a critical regard for others. Excessive time spent in home maintenance tended to be related to relatively unambitious subjects who experienced extreme amounts of parental protectiveness.

4. A positive attitude toward authority figures was related to the ability to accept needed guidance.

5. Observed social maturity and successful interpersonal relations were related more closely to reasoning ability and to divergent thinking than to the ability to think convergently.

6. Persons with emotional problems did not perform successfully even when they were in the upper limits of the intellectual range for educable retardates.

7. Physical size and stamina plus freedom from physical handicaps were cited as prime determinants of success.

8. The influence and stability of the family had an effect upon the son according to the rating scales administered.

9. Extending the length of habilitation training because of the failure of a candidate to attain the necessary degree of job readiness is not found to be profitable.

10. Two-thirds of the positions held by the subjects are unskilled.

11. The presence of emotional problems and social immaturity of retardates is found to be the common cause of total failure in persons who received habilitation training.

12. Residence in halfway houses or residences with relatives is more satisfactory than attempts on the part of retardates to establish completely independent household.

13. In some instances educable retardates can be successful marriage partners, but data supports a strong suggestion that retardate cannot meet the demands of parenthood.

Donaldson, Hale C. "Volunteer State Vocational Centers." Sponsored by Tennessee Association for Retarded Children and Adults, Incorporated. November 22, 1966.

A network of ten Occupational Training Centers and Workshops were established across the state of Tennessee to provide evaluation, training, and employment for the retarded in the various communities. It was under the State Vocational Rehabilitation Administration of the Department of Health, Education, and Welfare and by the Tennessee Association for Retarded. The project proposed to demonstrate several things. Among them was that service for all major disability groups could be offered at one community center to demonstrate

that clients benefit from working with other groups and not "from isolation.

Significant Findings

1. Centers were a method of arousing community interest in the handicapped, and they tended to focus the attention of the community leaders on the abilities of the handicapped rather than on their disabilities.
2. For the client, the wage factor is a strong motivating force.
3. There must be very close cooperation between the centers and Wage and Hour Division of the Department of Labor.
4. Agencies and families learned that training can benefit the retarded and other handicapped persons previously thought to be unemployable.
5. The Tennessee Association believes that family understanding and social stability is essential to successful rehabilitation. The center managers' appraisal of family support received by trainees while they served in the center revealed 30% gave clients good support, 30% gave fair support, and 40% gave poor support to plans of habilitation.

Richter, Otto H. "Vocational Rehabilitation of Disabled Public Assistance Clients." Prepared by Wisconsin State Board of Vocational, Technical, and Adult Education, Rehabilitation Division, and the Milwaukee Public Welfare Department, Milwaukee, Wisconsin. January, 1967.

This investigation was supported by a research and

demonstration grant from the Vocational Rehabilitation Administration under the Department of Health, Education, and Welfare in Washington, D.C. The State of Wisconsin through this grant participated in the nationwide efforts of finding better methods, techniques, and procedures for rehabilitating the disabled needy welfare applicant and recipient. This was a selected demonstration project which was designed to restore disabled vocationally handicapped persons to gainful employment. Twenty-five per cent of the 183 clients included in the project were mentally retarded, 21% were mentally ill, 19% were orthopedically disabled, and 9% were included in other categories including 3% visually handicapped.

Significant Findings

1. The majority of the clients rehabilitated during the three year demonstration project (62 persons closed) were men who had unskilled jobs or who had never had a regular job prior to rehabilitation. Most disabilities were caused by disease.

2. The majority of women who were served in the project were disabled as a result of mental retardation. The majority of the women had never been regularly employed prior to rehabilitation services.

3. Work evaluation centers and work adjustment centers enabled the clients to make gradual adjustments to the idea of work and to its constant demands in terms of attendance, punctuality, and relating to supervisors and fellow employees.

4. Failure to keep appointments and to attend training sessions regularly on their own accord was the rule rather than an exception for most of the clients. A need for services on a continuing basis after placement for all welfare clients have been placed on the job.

5. In order to assist the welfare recipient and applicant in this project, the entire family's problems often had to be considered.

Lord, Francis E. "Work Education for Educable Retarded Youth." California State College at Los Angeles, 1964.

The institutes reported in this article were supported by a grant from the Vocational Rehabilitation Services. These institutes were planned to assist secondary schools in California and to establish work-education programs. The first institute was planned for administrators and supervisors of secondary schools to establish guidelines for effective programs. The second institute was planned to appeal to professional personnel actually operating programs. The emphasis was placed upon curriculum, work assignments, coordination, and evaluation.

Evelyn Deno, Consultant in Special Education and Rehabilitation in Minneapolis Public Schools of Minneapolis, Minnesota, presented some of the following significant findings from her work assessment project at one of the institutes:

1. In over 40% of the cases, emotional disturbance,

subcultural disadvantage, or combinations of these problems constitute the major disability as far as educational work-adjustment is concerned. Only one-fourth of her population is considered uncomplicated mental retardation.

2. Many of their clients can job-perform better than they can read. More retardates lose jobs because they lack social fitness rather than because of their inability to perform the job in which they are placed.

Deno, Evelyn; Henze, Richard; Krantz, Gordon; and Barklind, Kenneth. "Retarded Youth; Their School-Rehabilitation Needs." September, 1960 to August, 1964. Final Report of Project ED 1681.

The Minneapolis Schools with the encouragement of the Minnesota Division of Vocational Rehabilitation made application to the Vocational Rehabilitation Administration for funds to assist in conducting a research and demonstration project to study and demonstrate special occupational training services for mentally retarded youth. This study was begun with the idea that research and demonstration is a tool for achieving better problem definitions and for providing the opportunity for trying various means of problem relief. The project was designed to explore for methods of operating which might alleviate deficiencies in traditional school-rehabilitation functioning.

Significant Findings

1. The majority of students enrolled in special education programs did not receive vocational rehabilitation agency service.

2. Vocational rehabilitation service limited to the senior high schools missed one-fifth of the retarded who had already dropped out of school.

3. Methods of selecting retarded students for a trade school program could be improved so that accurate prediction of survival in training would be increased. The rate of survival in trade school training remained so low that the appropriateness of this kind of training for the educable mentally retarded was questionable.

4. Of the 91% of former students in the follow-up study of all Minneapolis Public Schools educable retarded special education classes between 1957 and 1960, almost half of the subjects were holding full-time jobs, were in the armed forces, or were housewives at the interview time. Only 23% could be rated as successful when multiple factors such as vocational and marital stability, level of wages earned, independence, and crime records were considered.

5. The extensive involvement in crime among these students was striking. Forty-two per cent of the 383 students interviewed had police records, 38% of the boys and 15% of the girls had been implicated in serious offenses as juveniles, and 11% of the boys had serious adult crime records.

6. Students who had gotten jobs had generally gotten them through friends and relatives or by direct application to the employer.

7. Although students claimed independence, only one-fourth of them were living independently--renting, living in

their own homes, or military housing--while three-fourths were living at home with relatives or were in institutions.

8. More girls were married than boys.

9. Students came from economically poor backgrounds and lived in areas of the city where juvenile delinquency rates were high.

10. Parents tended to give more accurate school histories and to feel more positively about special class placement than did the students.

11. Nine out of ten parents felt the student still needed further schooling or training. Equally often mentioned as something the student would need most was affection, attention, patience, encouragement to develop confidence and friends, and guidance from an understanding person to develop a sense of direction.

12. Students and parents openly expressed concern about friends and family relationships.

13. Case outcome is very poorly predicted by the IQ or by a similar single datum. The IQ is unstable in the Educable Mentally Retarded group and rises and scatters with time.

14. Nearly 90% of the students in the study showed potential for social development throughout a senior high program.

15. About 80% showed potential for competitive employment in adulthood, and three-fourths of the remainder showed potential for terminal sheltered employment.

16. Parents tended to be cautious about job plans, with over half of the parents stating they did not know what kind of work the student should go into.

17. Continued follow-up contact in all cases was performing a very essential service function in addition to the evaluative-research function.

18. The follow-up procedures revealed the frequent change of status of the individuals in this population which underscored the instability of statistics based upon information gained at a single point in time.

19. Seventy per cent of the cases showed evidence of utilizing community resources which were available to them.

20. The project had little difficulty finding jobs for its students, perhaps because of its identification with public schools.

21. The population served by the project had certain inherent limitations such as poor social judgement and a lack of the ability of follow-through on plans.

Bitter, James A. "Work Experience Center: Habilitation of the Retarded." Demonstration Grant Number RD 1525. August, 1967.

This VRA project was a cooperative endeavor of three institutions: The Special School District of St. Louis County, Missouri; the Missouri State Division of Vocational Rehabilitation; and the St. Louis Jewish Employment and Vocational Service, which was also the grant administering agency. These agencies felt that a program which would reach potential

drop-outs prior to their leaving school would assist in developing their vocational potential. In this project, retarded adolescents received work experience at JVS on a half-day basis.

One hundred thirty-two Missouri State Division of Vocational Rehabilitation referrals from the Special School District were served during the three year project. Eighty-six trainees had completed full program services, twenty-three had been returned to school full-time, and twenty-three were still being served by the program at its termination.

Specific Findings

1. Community and industrial resources are considered important.
2. Specific job training is desirable.
3. A reality-oriented production shop for vocational adjustment training is considered desirable.
4. Transportation training and self-concept development for trainees is advantageous.
5. The successful retardate was clearly superior to the unsuccessful in physical, social, and work characteristics.

Summary

The studies included in this chapter signify some important concerns directly related to possible curricula. Facilities (such as the need for sheltered workshops), group counseling, and the lack of a good self concept are noted. Job placement, including opportunities for and its possible success factors were major concerns.

In general, these studies tend to support the literature in that retardation and job success is no simple process. Work variables to include social and environmental indices are very complex. That each region is unique, appears to be an understatement.

PART III - STRUCTURED INTERVIEWS

As indicated in other sections, geographical differences might be a factor in vocational education. To help understand such possible factors, a body of data was collected from vocational workers (those working directly with high school and young adult EMR's), adjustment counselors (teachers), parents, employers, and students (present and former) who were working at a job. In an attempt to find a representative sample, data collecting visits were made to Jackson, Greenville, Meridian, Hattiesburg, Tupelo, Gulfport, and Pascagoula, in Mississippi.

After appointments were made to discuss the nature of the research, a "question sheet" was sent to the area coordinator. This was to inform the vocational workers of the kind of information being sought. Typically, the days data gathering included the following:

- (a) AM discussion with coordinator
- (b) AM-PM discussion with former students
- (c) PM site visits
- (d) PM conferences with counselors
- (e) PM structured interviews with representative samples of teachers, counselors, employees, and parents.

The forms on the following pages are samples of the structured interviews, questionnaires, and rating scales

utilized. No claim of sophistication is made. The purpose was to gain quantitative information about vocational behavior of EMR's in actual situations. It is believed this information was in harmony with the overall purposes of this investigation.

CHAPTER VII

STRUCTURED INTERVIEWS IN MISSISSIPPI

This chapter contains structured interviews, questionnaires, checklists, and related information from vocational workers, teachers, employers, parents, and former students.

The tables indicate tabulations of information gained from on-site visitations. No attempt was made to evaluate the "goodness" of any particular cooperative program. What indices are stated are presented in the hope that they might benefit the EMR in vocational pursuits.

Table 11 consists of responses of vocational counselors to success factors contributing to employment of EMR's. In general, the factors indicate that social and environmental items are dominant. Several items suggest the self-concept dimension, and counseling items are indicated. Items of screening, supervision, motivation, and favorable working conditions are seen as important. Of note, and not usually found in other data, are the references to salary and to allowing clients an opportunity to find their own jobs.

In the next table, Table 12, counselor responses were listed indicating "problems" encountered in vocational placements. This is significant information, since the statements were repeated several times and are indicative of "real"

TABLE 11
FACTORS THAT CONTRIBUTE TO SUCCESSFUL EMPLOYMENT

COUNSELORS RESPONSE TO FACTORS THAT CONTRIBUTE
TO SUCCESSFUL EMPLOYMENT FOR CLIENTS

Job orientation prior to placement
 Community interest and concern for the program.
 Counselor-client relationship
 Clients employment potential
 Supervision on the job and follow-up of clients
 Screening clients to find out job interest prior
 to placement
 Periodic conferences with employer and client
 Client postive self-concept
 Clients' interest in job success
 Motivation for seeking employment
 Clients' level of functioning on the job
 Employers interest in working with the retardate
 Work habits
 Parental guidance
 Clients' attitude toward employment
 Clients' social adjustment
 Allowing clients' and opportunity to find their own
 jobs
 Favorable working conditions
 Retardate feeling of worth
 Salary
 Personal adjustment
 Utilization of sheltered workshop when necessary

situations. Of interest is the item "transportation." Nearly every site visited indicated that transportation is a significant problem. Most cities, except Jackson, are not large enough to have full-service bus transportation. Not all clients work where car pools are available, and only a few can drive their own cars or can afford them early in their vocational careers. Transportation is considered a real "headache" in most areas.

TABLE 12

PROBLEMS ENCOUNTERED IN WORKING WITH VOCATIONAL EDUCATION
CLIENTS

COUNSELORS RESPONSE TO PROBLEMS ENCOUNTERED
WITH CLIENTS

Job opportunities for female retardates

Teacher-client relationship

Parent-counselor relationship in planning vocational goals
for client

Transportation

Improving communication between parent, teacher, counselor,
administrator and client

Parents and client conflict regarding employment goals

Unrealistic employment goals of parents cause emotional
problems for client

Process of rehabilitation

Parental acceptance of clients' level of maturity

Need half-way house for vocational education clients

Lack of teaching materials available for junior and senior
high school teachers in vocational education classes

The research team was somewhat surprised when the Greenville counselors, or vocational workers, indicated no such ~~problem~~. The solution was simple. It was indicated that early in their vocational plans, when the student first made some money, the students were guided to buying bicycles. These bicycles served as relatively easy transportation in

this city. This was a logical answer to a significant problem. Later, the client bought a car; however, the bicycle had served well before that and didn't require a huge amount of money. The Greenville vocational workers indicated no real problem with this means of transportation, and it should be applicable to other situations.

The statement from Table 12 about female retardates is somewhat different. In large urban areas (like Portland, Oregon), it was found that females were easier to place, especially in service occupations. It may be that many Mississippi areas rely on factory type operations. "Relationship" factors are not unique, nor are these indicating process of rehabilitation (See Deno, 1965; Plue, 1968), unrealistic employment goals, or communications. The half-way house and lack of materials are somewhat unique, and neither are abundant.

A thirty-five item checklist suggesting general problems in working with clients was presented to vocational counselors, teachers, employers, and parents at each of the meetings. The items in this checklist were suggested in the readings from several authors indicated in Section I of this monograph. Employers were not represented at the Pascagoula meeting, and parents were not represented at the Pascagoula or Tupelo meetings. Each participant indicated his conception of the items as shown in Table 13.

While no statistical data is presented, several comments can be made about the instances of ratings. The items

TABLE 13

GENERAL PROBLEMS IN WORKING WITH VOCATIONAL EDUCATION CLIENTS

PROBLEMS	CITIES															
	GREEN-VILLE				GULFPORT-BILOXI				HATTIES-BURG				JACK-SON			
	T	C	E	P	T	C	E	P	T	C	E	P	T	C	E	P
RATINGS																
1. Accepting criticism	1	1	1	0	1	1	1	1	1	1	2	1	1	1	1	1
2. Neatness	1	1	1	0	1	1	1	0	1	1	1	1	1	0	1	1
3. Cleanliness	1	1	1	0	1	1	1	0	1	1	1	1	1	2	1	1
4. Self-consciousness	2	2	1	1	1	1	1	0	1	1	1	1	1	1	2	0
5. Careless with materials	1	1	1	0	1	1	2	1	0	1	1	2	1	1	1	1
6. Being on time	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
7. Family support	1	1	1	0	1	1	2	1	0	1	1	1	2	1	1	0
8. Quarrelsome	1	0	1	1	1	1	0	1	1	1	1	1	0	2	2	0
9. Aggressiveness	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	0
10. Knowledge of job	1	1	1	0	1	1	1	0	0	2	0	2	1	1	1	0
11. Illness	0	1	0	0	1	1	1	0	0	0	1	1	0	1	1	0
12. Poor attitude toward work	1	0	1	0	1	1	1	0	0	0	1	1	0	1	0	0
13. Vulgar	0	1	0	0	1	1	1	0	1	1	1	1	0	1	0	0
14. Lazy	1	0	1	0	1	1	1	0	1	1	1	1	0	1	0	0
15. Chip on shoulder	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0
16. Welfare	1	1	1	0	1	1	1	0	1	1	1	1	0	1	1	0
17. Tempermental	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18. Inefficiency	2	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
19. Conduct	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0
20. Break periods	1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	0
21. Responsibility	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	0
22. Safety	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0
23. Moody	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24. Sex mores	1	1	1	0	1	1	2	1	1	1	1	1	0	1	1	1

123

TABLE 13--Continued

PROBLEMS	CITIES																					
	GREEN-VILLE			GULFPORT BILOXI			HATTIES-BURG			JACK-SON			MERI-DIAN			PASCA-GOULA			TUPELO			
	T	C	E	P	T	C	E	P	T	C	E	P	T	C	E	P	T	C	E	P		
RATINGS																						
25. Eye-hand coordina- tion	2	1	1	0	1	1	0	0	1	1	1	1	1	1	1	1	1	2	1	0	1	0
26. Strength	2	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0
27. Use of muscles	1	0	1	0	0	1	1	0	0	0	1	1	1	1	1	1	1	1	0	1	0	0
28. Form perception	2	1	1	0	2	1	0	1	1	1	1	1	1	1	1	1	1	2	0	0	0	0
29. Work permits	2	0	1	0	1	1	1	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0
30. Labor unions	2	0	0	0	1	1	1	0	2	1	0	0	0	0	0	0	1	0	1	0	0	0
31. Adequate school work curriculum	2	1	1	0	1	2	0	1	2	1	1	1	1	1	2	0	0	1	0	1	0	0
32. Birth certificate	1	0	1	0	1	0	0	0	0	0	1	1	1	0	0	0	1	0	1	0	0	0
33. Social security card	1	1	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	0	0	0	0
34. Reality	1	1	1	0	0	1	0	1	1	1	1	2	1	0	0	0	0	1	0	0	1	0
35. Others																						

LEGEND

T = Teachers
C = Counselors
E = Employers
P = Parents

Ratings

0 = No problem
1 = Some problem
2 = Big problem

* Transportation
Inadequate facilities
for teaching job skills
Job evaluation

"self-consciousness" received eight (8) two (big problem) rankings; while "family support" received nine (9), and "adequate work curriculum" received six (6). All others were less than five. These three were fairly consistent with the various groups; however, "self-consciousness" was less noted by the employers (and this may have counseling value), family support wasn't particularly noted by parents (two 1 rating and three 0 ratings), and employer or parents did not recognize the curriculum as a problem.

One might speculate about some of the between city differences; however, it is best to describe this as a stage of local history. Each area has its own development. The "2" ratings for "labor unions" by Greenville and Hattiesburg teachers, for instance, might be a time dimension--others may not have run into the situation or may have circumvented it.

Similar questions were asked directly of vocational counselors as a prelude to the checklist. These questions which attempted to give a deeper understanding of some of the problems thought to be relevant to vocational education are tabulated in Table 14. Important percentages indicate the following:

1. One hundred per cent (7 of 7) of the areas indicated client-parent interests and ambitions were important in placement (parent support and motivation factors).
2. One hundred per cent (7 of 7) indicated screening took place before placement (counseling and aptitude factors).

TABLE 14

CHECKLIST FOR VOCATIONAL EDUCATION COUNSELORS

QUESTIONS	CITIES											
	GREEN-VILLE			GULFPORT BILOXI			HATTIES-BERG			JACK-SON		
	Y	N	S	Y	N	S	Y	N	S	Y	N	S
135	RESPONSE											
	Y	N	S	Y	N	S	Y	N	S	Y	N	S
1. Are adequate training facilities provided clients for the types of jobs available?	X			X			X			X		
2. Is a list of job possibilities provided for the clients?	X			X			X			X		
3. Are job descriptions made available for clients?	X			X			X			X		
4. Are client and parent interests and ambitions an important part in placing a client in a suitable job?	X			X			X			X		
5. Are clients screened before job placement?	X			X			X			X		
6. Are periodic in-training evaluations made of clients?	X			X			X			X		
7. Do retarded clients require greater supervision on the job?	X			X			X			X		
8. Is there a tendency for agencies to rely on past successes of clients?	X			X			X			X		
9. Has there been a problem with labor union opposition to employment of the retarded?	X			X			X			X		

TABLE 14--Continued

QUESTIONS	CITIES											
	GREEN- VILLE	GULFPORT BILOXI	HATTIES- BERG	JACK- SON	MERI- DIAN	PASCA- GOULA	TUPELO					
	Y N S	Y N S	Y N S	Y N S	Y N S	Y N S	Y N S	RESPONSE				
10. Do retarded clients make good team workers?	X	X	X	X	X	X	X					
11. Is continuous follow-up of clients a part of the training and placement program?	X	X	X	X	X	X	X					
12. Are fringe benefits provided for retarded workers?	X	X	X	X	X	X	X					

LEGEND

Y = Yes
N = No
S = Sometimes

3. Eighty-six per cent (6 of 7) indicated definite on-the-job supervision took place (counseling factor).
4. Eighty-six per cent (6 of 7) indicated follow-up services (counseling factor).
5. Fifty-five per cent (4 of 7) indicated EMR's required more supervision (training factor).
6. Fifty-five per cent (4 of 7) indicated agencies relied on past placement successes (counseling factor).

Other figures did not appear to be remarkable.

In the tables that immediately follow, Tables 15 through 18, contain the structured interview data gathering results. The researchers interviewed counselors, teachers, employees, and parents separately; and a compilation of statements of directed questions are shown. In general, each of the interviews attempted to find information about the same concern. In some instances, the questions were re-worded for easier understanding on the part of the subject of the interview. However, some questions were unique (this is true particularly of the Parent, Table 18, interview).

Attention is directed to the following information in Table 15.

- (a) Q #10--Time and again, demonstration research has indicated case load problems. Overloading counselors who do rehabilitation work with the mentally retarded does not make vocational placement, counseling, or education an easy matter. It has been amply

demonstrated, under ideal conditions, that retarded clients will need longer rehabilitation time.

(b) Q #6, #7, and in questions of future tables--the concern of "status" appears. This is a situation that involves the "climate" of an environment. On the one hand, it might be with regard to kind of work and on the other with regard to placement. Some of this concern stems from public relations, and other seems to evolve from the experience and background of dealing with exceptional population. In Table 16, directed to teachers or adjustment counselors, several interesting points were observed.

(a) Q #1, #2, #5, #6--The recognition of several objective constructs related to vocational education and the mechanics of such education or placement.

(b) Q #10--The indication that field trips are profitable and that objective observations for EMR students are used.

The structured questions, Table 16, of employers were revealing in that more concern was placed on time, supervision, and mechanics of work. This, of course, is not surprising; however, curriculum should pay heed to these dimensions. As indicated from other research, the aspects of unskilled service and semi-skilled work is not generally known or emphasized by educators. The following should be noted:

(a) Q #1, #2, #3, #4--Readiness for job, supervision needed, and work constructs (training emphasis).

TABLE 15

130

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF COUNSELORS

Questions	Response
1. Given an ideal situation, what do you feel would help clients become more successful?	Individualized approach to teaching job skills Team approach to counseling clients Not labeling clients Opportunities for recreational activities Integrate clients with students in regular class in areas where they can compete Job placements for female clients Diversified occupations Half-way house for clients More job samples More activities for social interaction Community acceptance Developing good self-image Realistic motivation of job goals A well balanced vocational education program including academics, vocational training and socialization A well defined evaluation process Personality of client Learning to get along with others Being on time for job assignment Work stations and materials for teaching job skills in the classroom Support of parents of realistic job possibilities Well trained teachers Curriculum designed for world of work

TABLE 15--Continued

131

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF COUNSELORS

Questions	Response
2. What do you need most in the area of work education?	Evaluation center Social worker to work with parents Basic skills for teaching social interaction Orientation period with employers Activities for teaching interpersonal and social relations In-service program for employers and parents Library with up to date reading materials for counselors Materials to help clients overcome reading deficiencies Restructuring the school day so clients can spend a half day on academics and a half day on job assignment Sex education for parents and clients Intensive vocational education program beginning at the intermediate level In-service program for regular teachers concerning vocational education program Trial period for clients to participate in auto shop and simple electronics, etc. Additional work space in classroom Materials and facilities in classroom to allow students an opportunity to develop work skills in a controlled environment

TABLE 15--Continued

132

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF COUNSELORS

Questions	Response
3. What are the causes of absenteeism?	Very little absenteeism on job Some absenteeism at school (clients would prefer work to classroom activities) Usually health related Disinterested parents Babysitting for parents Lack of maturity and initiative
4. Do the clients have problems with transportation?	None Yes, there are no city buses Yes, with clients living outside city limits and in rural areas Yes, with clients that have their own cars Poor means of transportation
5. How early do you work with students? Early enough? Too early?	Begin at junior high level Should begin with students in intermediate grades in elementary school Begin with some students as early as 13 years of age on personal and social adjustment Age 14 for vocational interest Age 16 for vocational rehabilitation students at Ellisville Age 14 for public schools Not ready for work until age 17 or 18 Age 17 Age 13-14 may be too young, prefer age 16 Age 13-16 need intensive vocational education program Age 14 is too soon to work with students Age 14 depends on individual Begin at age 14, need at least four years to work with student
Greenville	
Gulfport/Biloxi	
Ellisville	
Hattiesburg	
Jackson	
Meridian	
Pascagoula	
Tupelo	

TABLE 15--Continued

133

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF COUNSELORS

Questions	Response
6. What problems have you encountered with clients work longevity? Mobility (job hopping or moving out of area)	Attitude of client regarding work assignment Work habits Being able to handle problems on the job Stigmatism on clients in vocational education program Less than 65% of clients job hop Varies with job and client Very little job hopping Stable in city areas Generally change for better jobs and pay Eighteen months average time on job Depends on employer Younger clients usually try three or four jobs before settling down to a steady job Equates with general population for age and skills Boys generally do more job hopping than girls Some clients remain on jobs three years or more Job hopping is discouraging
7. What problems have you encountered with parents?	Good cooperation from parents Status problems Parental acceptance of clients' vocational potential Over protection Apathetic Depend on client Lack of communication between counselor, teacher and parent Lack of parental support Very few problems Parental expectations conflict with clients' job goals

TABLE 15--Continued

134

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF COUNSELORS

Questions	Response
8. What personality problems have encountered in working with clients?	None Clients' acceptance of disability Regards for social responsibility Interpersonal relations Communication skills Inadequate self-concept Social adjustment None that stand out Lack of responsibility Insecurity Lack of acceptance by peers in regular class
9. What means are use in re-opening cases?	Begin client as a new referral Can reopen when necessary Counselor can relocate a client without reopening the case Reopening is not common No problems in reopening a case Depends on individual client needs
10. What is your case load?	Excessive case load per counselor 50 clients in workshop 80 clients per counselor 150 full time clients Approximately 200 clients 60-70 per counselor 150-185 clients, ideal 60 165-195 clients per counselor 150 clients per counselor, Reasonable case load per counselor

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF TEACHERS

Questions	Response
1. Given an ideal situation, what do you feel would help clients become more successful?	Individualized approach to teach job skills Classroom activities geared to on the job training More materials for vocational education classes Frequent evaluation of job performance Periodic conferences with clients on job performance Classroom space and facilities for teaching a variety of job skills Securing job analysis Opportunities for work experience on jobs at school Role playing of job situations Free time for planning Release time for securing jobs and supervising clients Curriculum materials to interest and motivate students Periodic review of job opportunities Personal appearance and hygiene Counseling parents for clients developing independence Integrating clients in junior and senior high activities, i.e. sports, manual arts, choir, etc. Model job training stations in classroom Correlating job descriptions in curriculum activities

TABLE 16--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF TEACHERS

136

Questions	Response
2. What would help you most in the classroom?	Classroom space for individual work stations Curriculum materials designed for EMR and TMR Vocational education students (high interest, low ability) Vocational oriented materials Realistic materials on vocational pursuits Cooperation from administration Teaching suggestions from supervisors or university professors In-service training for vocational education teachers Materials and equipment to train clients on job interest Practicum class in vocational education Programmed materials in vocational education Teacher aides or volunteer workers Materials for diagnostic and evaluation purposes Modular training areas Relevant reading materials Audio-visual materials

TABLE 16--Continued

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF TEACHERS

Questions	Response
3. What is the stronger part of your program?	Helping each student achieve a degree of success in activities in the classroom Types of vocational activities provided Opportunities to meet with employers to discuss job skills and students performance Dedicated teachers On the job placements Securing job samples Teaching arts and crafts Role playing Release time for planning, supervising clients, counseling clients and parents Volunteer teacher aides Prevocational skills Students acceptance of teacher Student interest in government and voting Citizenship training and respect for law Developing behavior acceptable to social and work situations Release time for home and community visitation Departmentalized and team approach to teaching job skills Student motivation for work Successful placement on jobs Students conferences on job related problems

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF TEACHERS

Questions	Response
4. What separates the successful clients from the unsuccessful?	Lack of interest Support from family on vocational goals Parental interest concerning vocational education program Students who begin early in the program Attitude Job sight Parental interference Organized program of pre-vocational training and work Successful job placement Quality work Satisfying the employer Personal appearance Social adjustment Personality Participation in activities with peers in regular class Appropriate behavior Able to maintain safety precautions Respect for property Accepting responsibilities Expectation of clients Acceptance of other people Lack of personal orientation on part of teacher

TABLE 16--Continued

139

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF TEACHERS

Questions	Response
5. What do you do in your curriculum that leads most to prepare students in the vocations?	Discuss and train students for jobs available in the area Provide opportunities for students to learn pre-vocational skills Correlate job skills with classroom activities Helping student become realistic about job possibilities Teach self-responsibility Job adjustment Work vocabulary Job habits Teach personal and social adjustment Discuss discipline in classroom and on the job Restoration of physical defects, i.e. vision, hearing and dental Exploring job interest and including job interest in curriculum activities Work on jobs at school Visit places for future employment Vocational oriented program Manual training Teach students to follow directions Filling out application forms Enhancement of self-concept Use of tape recorder for job interview Role playing Studying skills necessary for jobs

TABLE 16--Continued

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF TEACHERS

Questions	Response
6. What media, curriculum and materials do you use in your classroom?	Films and filmstrips related to various jobs Ditto machines Workbooks Charts Use films for orientation of faculty to vocational education program Adding machine Cash registers Record players Tape recorders Listening stations Title III Sequential Developmental materials Vocabulary exploring Orientation to work Vocational mathematics Social studies Materials that are job related Guest speakers from places of employment in community A variety of materials to help students gain a more realistic vocational outlook Materials secured for vocational rehabilitation and public school Programmed reading materials Class newspaper Self-instructional films Use materials to help broaden students vocational horizons Use materials that are of interest to students Sex education Unit approach Job exploration on field trips

TABLE 16--Continued

141

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF TEACHERS

Questions	Response
7. Has the community accepted your program?	Yes, the teacher has played a leading role in selling the program to the community Low acceptance Parents reject program Racial resistance to classes Has improved Excellent Employers have helped to sell the program in the community Fair Public needs to be informed Students and teachers in the school do not accept program Good relationship Good community relations
8. Has the school administration accepted the program?	Yes, excellent cooperation Yes, but is not interested in integrating students with peers in regular classes Very cooperative Excellent Faculty and administration are very helpful Very good in school Teachers are left to operate program as they desire. Not concerned about special class Administration takes an active interest in the program

TABLE 16--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF TEACHERS

Questions	Response
9. What kinds of problems does the student bring to you?	Dissatisfaction with job placement Not being able to adjust to work situation Students do not discuss problems with teacher Personal and social problems Family problems Physical and emotional School problems Communication problems Sex education Personal problems Parents acceptance of program Anxiety concerning value of state graduation certificate
10. Do you carry your students on field trips? What kind? What do you look for?	To local businesses in community Look for skills necessary for those jobs Vocational exploration Observe the following: a. noise level b. working conditions c. number of employees d. tools and machinery e. restriction in the plant Ask questions concerning: a. salary b. opportunities for promotion c. specific training needed d. age requirement e. labor laws f. person in charge of hiring Places visited a. Dairy b. Chicken processing plant c. Garment factories d. Potato chip plant e. Bakery f. Hotel and motel g. Restaurant h. Department stores, etc.

TABLE 17

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF EMPLOYERS

Questions	Response
1. Given an ideal situation, what do you feel would help clients become more successful?	Additional time for individualized training of clients An opportunity to experience a variety of job situations Training in personal-social adjustment Job stability Handling emergency situations on the job Parental motivation Attitudes toward work Ability to accept criticism Not laying clients off from work Developing good self-concept Providing job requirements Following directions Job status Responsibility to authority Handling emotional problems Clients self-confidence Drivers education program at school Ability to stay with a job
2. How much supervision is needed?	Very little supervision is needed for some clients Need assistance in following through on work task Depends on job assignment Great deal of step-by-step supervision is needed Sometimes parents are contacted to assist with supervision Evaluation is made of client job performance and supervision is provided based on evaluation Depends on clients' readiness for job

TABLE 17--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF EMPLOYERS

Questions	Response
3. Do the workers seem prepared?	No Yes, for cafeteria work Some are prepared Yes, for routine tasks but not for records and reports Need more on the job training Depend on worker Some workers lack good work habits
4. How prepared is the worker?	Lack understanding of job Requires a great deal of training Some workers are well prepared but begin at slow pace Ability to work and get along with others on job Cannot comprehend too many instructions at one time Instructions must be simple Well prepared for job assignment Have difficulty if duties change Have difficulty reading instructions
5. How do co-workers feel? Known? Managers?	Not known Some strife among co-workers regarding assigning clients to work with them Co-workers enjoy working with clients Managers usually set the climate for co-workers attitude regarding clients Co-workers and managers are too protective Clients do not fit in due to age gap Very helpful Co-workers are informed about clients before placement Clients do not like to take instructions from anyone other than manager

TABLE 17--Continued

145

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF EMPLOYERS

Questions	Response
6. How does his work compare? Quality? Quantity?	About average Workers are more dependable, reliable and capable of learn- ing a job skill Can operate machines Can handle a variety of jobs at service station Handle job assignments well Favorable Enthusiastic about work Enjoys routine tasks Very responsible Very good workers Lacks judgment
7. What are the workers assets? Liabilities?	Try hard to get along on the job Want to work and enjoy working Will listen and not try to take over Reliable Some clients are easy to train Are very good workers Very cooperative Enthusiastic about his work Responsible Respect and value their jobs
Assets	
Liabilities	Parental pressures Transportation problems Timid Not always as flexible in certain job situations Competition is too great for some workers Do not use work time wisely Must have every detail spelled out

TABLE 17--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF EMPLOYERS

Questions	Response
8. How do other employers feel?	Unknown Employers take special interest in workers Labeling retardates is a handicap in their getting a job Retardates are good workers if parents would not interfere Very independent Workers are limited to certain types of jobs Workers should save money Enjoy working with workers if they do their jobs well Do not treat retarded workers as a member of the working team

TABLE 18
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE FROM
PARENTS OF VOCATIONAL EDUCATION STUDENTS

Questions	Response
1. Given an ideal situation, what do you feel would help clients become more successful?	Skills in communication Training in socialization More on the job training Experience on a variety of jobs Individualized training and counseling of clients Less competition on jobs
2. What does he say most about his work?	Understands what is expected of him Works well with his hands Enjoys his work and the pay he receives Interested in operating machines Complains about being treated unfairly on job assignments
3. What worries you most about him?	Whether he will be able to conform to society Students need training in becoming independent Need to observe more job possibilities Very impatient
4. What does he do during his free time?	Visits friends Bows Swims Fish Sews House cleaning Baby sits Like to work on cars Watches television Unable to find anything to do during free time

TABLE 18--Continued

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE FROM
PARENTS OF VOCATIONAL EDUCATION STUDENTS

Questions	Response
5. What does he do with his wages?	Encourage him to save his wages Has saving and checking accounts at the bank Saving money to buy car
6. What kind of work related problems does he bring home?	None Works overtime and complains about not getting paid for overtime
7. What is he buying?	Nothing at present Buys own clothes Understands credit buying Does not understand the value of money Cannot be trusted with large sums of money Discusses major purchases with parents before buying Helping pay for bedroom set Helping parents with bills Buying television Buying stereo Bought guitar
8. What helped him the most in school?	Individual instruction due to pupil teacher ratio On the job training Sewing (makes own clothes) Arts and Crafts Getting along with people Sharing with others Work experience has made him more interested in school work Being paid a salary while in school Job readiness activities Reading Mathematics

(b) Q #6--Indication that EMR workers can be competitive.

Table 18 directed to parents was of a different structure. Particular attention should be paid to question #4 relating to use of free time. Consideration of the lack of overall responses to the questions asked is also important. This might suggest communication problems.

In the interview session at each area, a "brainstorming" session was held that included usually from 6 to 10 "vocational workers" (meaning counselors, teachers, employers, and parents). During the session several general questions were asked. The questions, in fact, were quite similar to those asked in individual sessions and gave a kind of validity to the overall information. One of the values of these sessions was that a great deal of interaction took place which seemed to aide in the articulation and communication of the total program and in the concerns of dimensions of that program. Table 19 lists general responses made to selected questions. These responses tended to be similar to those previously answered. Several important factors in this table are worth consideration. Consideration should be given to the kinds of diverse occupation (Q #5). Further, several items are of curricular interest in Question 8. Awareness of community resources, employment needs, and legal guidelines seem to call for attention.

An important feature of the interview schedule was

TABLE 19

150

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF VOCATIONAL WORKERS

Questions	Response
1. What are the activities of the school curricula that you feel lead to successful employment?	Integrated program of academics to job related work Job samples Self-evaluation Diagnostic center Individualized instruction Placement on jobs at school Work type situations in classroom Successful completion of work task at school Diagnosis and placement of students Basic skills in everyday living Helping client adjust to people and work situations Helping client handle problems in everyday life Basic skills related to job success Work habits Personal and social adjustment Counseling client, and parents Rochester Reading Series and Films Flexible scheduling of activities Vocational orientation to geographical area Practical skills Field trips Safety precautions on job and home Acceptable behavior Familiarity with common tools and their use Basic mathematics applicable to life situations Concept of rewards and punishment Building positive self-concept Sensory motor training Arts and crafts Selective placement of clients according to potential Communication skills

TABLE 19--Continued

151

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF VOCATIONAL WORKERS

Questions	Response
. What have you noticed that makes a person successful on the job?	Good attitude toward work Learn how to handle problems that arise daily on the job Preparation for job changes Consistent attitude of support from employer Preparation of employers to work with vocational workers Motivation for work experience Personal health habits Enjoyment of work Working environment Adequate training for job Proper counseling Attitude of employer Clients that have gone through junior and senior high special education classes Relationship with co-workers and employer Adaptability Personality Being on time Being responsible for getting to the job himself Overprotective parents Adjustment to opposite sex Permitting clients to complete a job task Pride in the job Aptitude Immediate rewards on the job Appearance to employers Individual planning by counselors and teachers Matching client and employers personality Reasonable base wage Realistic interest in job Clear understanding of employers in relation to reasonable job expectations for clients

TABLE 19--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF VOCATIONAL WORKERS

Questions	Response
3. How do former students get jobs?	Counselor Peers Student find job Company office Family (brothers or sisters) Teacher Relative and friends Newspapers Parents Employment agencies Field trips
4. In field work, do you find it necessary to make many contacts with teachers, counselors, employers, parents, clients, etc.?	Contact is made every two weeks; pattern varies One or two contacts per week while client is on the job Teachers play a leading role in making contacts with employers, clients and parents Vocational counselors are required by law to make at least one contact per month with a client Parents are contacted as often as deemed necessary for client best interest Sometimes necessary to make contacts with other family members Two or three times the first weeks on the job, then once a month Depends on the nature of the problem Usually a follow-up once a week for the first few months on the job Yes, contact is made with all of the above because it takes about four or five years to close cases with EMR's from beginning of training to successful placement

TABLE 19--Continued

153

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF VOCATIONAL WORKERS

Questions	Response
5. What kinds of jobs do the former students find successful work in your geographical area?	Riverboats Chain stores Service station Carpentry Hotel-Motel service Food Service Welding Restaurants Automotive Refrigerator service Small appliances Receptionist Cashier Custodial work Nurses aide Construction work Truck driver Dairy farm work Off-shore oil Teacher aides (Day Care Centers) Supermarket Bus boy Florist Domestic help Secretary in office Shipyards Department stores Gardening Shoe repair Plumber assistant Electrician assistant Auto mechanics Upholstery Canneries
6. What do you believe is most helpful for you to assess when you consider the employment of a client when he has been on the job for an extended period of time?	Employer satisfaction Longevity on job Tenure Work adjustment Observation of clients strengths and weaknesses. Discuss with client what can be done to improve in these areas Evaluate clients job performance Merit pay Job satisfaction

TABLE 19--Continued

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF VOCATIONAL WORKERS

Questions	Response
7. How much on the job training has to be done?	Average six months depends on individual adjustment Depend on clients potentials for job skills and his interest in the kind of job assigned At least six months; however, this may depend on the type of job and client adjustment Usually one year, amount of time varies from one month to three or four years Depends on job classification and objectives of everyone involved with the client School program provides a six week on the job training period for each client. After this period the client comes to school for academics and may be placed a second or third time. Six months minimum, most clients require one year of training. Some clients may need two years of on the job training.

TABLE 19--Continued

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF VOCATIONAL WORKERS

Question	Response
What problems have you encountered in working with clients that was not dealt with in this meeting?	Lack of contact with parents and clients due to large case load Provision of classes at the junior and senior high levels for TMR clients Making teachers aware of various community resources available to students in vocational education program Additional staff to counsel and supervise clients Assigning grades to students in vocational education program Standards in community unions Lack of leisure time activities planned for clients Employment needs of local businesses and industries Minimum wage for EMR clients Job structure Civil service wage regulations for full and part-time employers Parental attitude Teaching clients to accept and anticipate frustrations Lack of follow-up of clients Sex education program Restructuring curriculum in vocational education program Legal state and national wage and hour guidelines Need a national clearinghouse of vocational education jobs nationwide Need sheltered workshop for 14-16 age groups Provisions for job tryouts

interviews with students and former students and former students who were in working situations. Schedules were obtained from thirty-four clients in seven areas. While the number is relatively small, some indications can be made for curricula. The results are shown in Table 20.

Of the older students (age 19 and over), indications were that they did not change jobs often and that they were relatively stable on the job. Where change was made, it seemed that the present job was a step up the vocational ladder. There were ten (10) inciations that the teacher got them their jobs--seven (7) from counselors and the rest were scattered and included self, training center, newspaper, and "through school." The answers relating to "training center" and "through school" might be attributed to the counselor or teacher.

Most of the clients could say what they did on the job and did not feel that any person gave them a bad time on the job. When the latter was indicated, it seemed to be one person involved.

Most of the clients lived at home; but a good number, especially older ones, did have apartments (and were able to handle the usual mechanics involved in maintaining an apartment). Salaries were spent on buying the usual things one needs to maintain one's self. Life insurance, furniture, food, clothes, ~~stero~~, and the like were often mentioned. Items like drivers licenses, salary deductions, saving and checking accounts, and installments were also listed.

TABLE 20

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Male	Female	Age	Length of Employment	First job How many jobs? Changed, why?	How was job secured?	What do you do on job? Why?	Persons who give you a bad time on the job
	X	16	5 months	Yes	Teacher	Stock shelves Change prices on items	No, I get along with everyone
S1	X	16	5 months	Yes	Teacher	Straighten articles on shelves	No
S2	X	17	1½ years	Yes	Teacher	Cook food because I like to cook	No
S3	X	18	5 months			Help sell shoes Put sizes and prices on shoes	No
S4	X	18	3 weeks	No, two jobs Worker in nursery school. Unable to adjust	Counselor	Cooks helper Cleans up Waiter	Yes, arguments with supervising personnel
S5	X	18	1½ years	Yes	Teacher	Help get cafeteria ready for lunch. Cleans up.	Yes, one lady wants me to do all the work
S6	X	22	5 months	No, counselor felt job was to difficult	Counselor	Can handle all positions Enjoys work	No
S7	X	14	Not working at present				
S8	X	15	6 months	Yes	Teacher	Clean food from trays in cafeteria	No
S9							

TABLE 20--Continued

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Where do you live?	How is money spent?	Items you have or use	Recreation	Friends Remember about school	What gives you most trouble since school?
At home	Buy my clothes	Life and health insurance paid by parents. Use house. Planning to put money in bank.	Movies	At school Still in and work school	Don't know
S1					
At home	Buying furniture for room and helps buy groceries		Watch TV	No friends Still in school	Don't know
S2					
Uncle	Buys clothes Sometimes pays bills Does not understand sales tax	Home, TV, life insurance, savings at bank, member of church choir Taking drivers training	Watch TV	At school Still in school	In school at present time
S3					
Sister & brother	Sales tax	Bank	Watch TV Go to movies	Lives near her teacher	In school
S4					
Parents	Shops for clothes Doesn't know how much is deducted from check. No idea of sales tax Bought stereo	Saving and checking account at bank Parents bought car Use TV Relong to youth and choir at church	Listen to stereo, watch TV and ride bicycle	School and church friends Not having many friends Not being able to talk with parents	Children teasing me about being retarded
S5					

TABLE 20--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Where do you live?	How is money spent?	Items you have or use	Recreation	Friends Remember about school	What gives you most trouble since school?
Parents	Shop for clothes Buy groceries for family Help pay bills (utilities) Social security Doesn't under-stand sales tax	Home TV Savings account Usher at church	Go to movies with boy-friend	Some in Greenville and Vicks-burg	Spelling and Arithmetic
S6					In school
Parents		Car Radio Use TV Life and health insurance with employer Car insurance Checking and saving acciylt at bank Member of YMCA Attend church Driver's license Draft status	Hunting Fishing Boxing weight lifting horseback riding	Two boys Math was to easy	Nothing
S7					
Mother	Buy candy, shoes and clothes Get allowance of \$1.00 per week	TV Stereo Car Attend church	Swim Play games Listen to radio	Five year old girl and one boy education at school Dislikes school and physical Likes to draw	In school
S8					
Parents	Buys clothes Buys groceries Understands sales tax Social Security and withholding tax	Home, TV, stereo Life insurance Checking and saving account Attends church	Skate Basketball Football	Lots of friends in Gulfport & Biloxi Meeting people and learning a lot of things	Difficulty with reading
S9					

TABLE 20--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

	Have you had any trouble with the law?	Married, Engaged or What?	What will you be doing five years from now?
S1	No	Planning to get married June 1, 1972.	Married and have a family.
S2	No	No information	No information
S3	No	Boyfriend	Working in cafeteria
S4	No information	By the end of this year I hope I will be engaged or married.	No information
	No	Have very close friends	Working in church library Possibly be a housewife with a bunch of kids. Attend church twice a week and on Sunday and some social activities
S6	No	Boyfriend	I would like to get married and become a practical nurse like my sister.
S7	No	Single	Become a professional salesman Assistant manager of shoe store
S8	No	Several boyfriends	Become a movie star, airline stewardess or an acrobat
S9	No	Girlfriend	I haven't thought about it. My mother wants me to be an artist. I like to draw.

TABLE 20--Continued

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Male	Female	Age	Length of Employment	First job How many jobs? Changed, Why?	How was job secured?	What do you do on Job? Why?	Persons who give you a bad time on the job?
X		16			Father	Move furniture	No
S10							
	X	22	2 years	No, I worked in school cafeteria	Training Center	Teachers aide Assist teacher	Yes, the children I work with
S11							
X		19	3 months	No, worked in service station for 5 years	Through training center	Odd jobs I like my work as long as I am outside	No
S12							
	X	25	3 months	Yes	By myself	Folds envelopes Dissatisfied with job. Job is not in line with training	No
170 S13							
X		17	1½ years	Yes		Cuts printed material	No
S14							
X		17	4½ months	Yes	Teacher	Delivers blue-prints	No
S15							
X		18	6 months	No, worked at service station and grocery store. Because of my mother.	By myself	Putting painted material on line	No
S16							
X		19	2½ years	Yes	Not asked	Works on printing machine	No
S17							

TABLE 20--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Where do do live?	How is money spent?	Items you have or use	Recreation	Friends	Remember about school	What gives you most trouble since school?
At home	Buy own clothes Helps buy groceries Sales tax Social security	Home Cars TV, stereo Olympic club Male chorus at church	Bowls	Friends of family	Likes school	In school
S10						
At home	Paying for bed- room set Shops for groceries and pays bills	Home car (use) TV (use) Life and health Insurance Car insurance Saving and checking account Square dance club Activity club for retarded Attend church	Square dance	Girls and boys at work and in neighborhood.	Hard work	Girl friends
S11						
Has room in Apt. house	Shops for clothes Pays bills Understands taxes	Rent room Life insurance on job Driver's license	Watch TV Not much free time	Some at Apt. house	Too long to remember	Nothing
S12						
Mother & Aunt	Buys groceries Pays bills Deduction from check	Help buy home with insurance from company	Night club	Some girls that live near me.	Nothing	No response
S13						

TABLE 20--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Where do you live?	How is money spent?	Items you have or use	Recreation	Friends Remember about school	What gives you most trouble since school?
At home	Shops with mother for clothes and groceries	Parents bought car TV Parents pay life insurance Checking and saving account. Does own banking Attend church Driver's license	Football	Children in neighborhood	
S14 Father	Does shopping for father and two little brothers Buys groceries with his father Helps father with weekly household expenses	Home Car TV Checking account Driver's license	Go to movies sleeps	Friends at school	In school Seems to be a loner.
S15 Mother	Does shopping Pays rent	Mother is helping to pay for his car Banks himself Driver's license	No free time	No friends	
S16 At home	Shops for himself	Home TV Saving account Banks himself Failed driver's test	Works on car	Two men who work on car with him	No response
S17					

TABLE 20--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Have you had any trouble with the law?	Married, Engaged, or what?	What will you be doing five years from now?
S10	Don't have a girlfriend	Would like to be a truck driver.
No		
S11	Have boyfriend and planning to get married.	Would like to continue as a teacher aide. I enjoy the work.
No	No girlfriend	Have no idea.
S12		
S13	No information	Undecided
Yes, got a ticket for speeding	Single	Doesn't know would like to continue working where he is now. He enjoys his work.
S14		
No	Single	Probably working where I am now.
S15		
Yes, parking ticket	Sort of engaged	No information
S16		
No	Single	Thinks he may be working in same place.
S17		
No	Single	Owner of beauty shop or begin training for nurses aide.
S18		

TABLE 20--Continued

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Male	Female	Age	Length of Employment	First job How many jobs? Changed, why?	How was job secured?	What do you do on job? Why?	Persons who give you a bad time on the job
	X	19	Not working at present in train- ing	Worked in din- ing hall at Jackson State Beauty shop on weekends	NYC	Prepared food at Jackson State Enjoyed work at Jackson State Fix hair	No
S18	X	19	14 months	No, worked as nurse's aide at Baptist	Sister	General care of babies Likes all aspect work	No
S19	X	20	3 years	No, work at egg plant and paper boy	Newspaper Want ads	Cook helper and clean up	No
S20	X	21	3 years	Yes	Teacher	Set up for lunch and cleans up after lunch	No
S21	X	17	5 months	Yes	Teacher	Wash and polish cars. Cleans up around garage	No
S22	X	18	5 months	Yes	Counselor	Janitorial work in recreation building	Yes, with one man that works with me.
S23	X	19	3 years	No, had odd part time jobs on weekends.			No, I give them a bad time.
S24	X	14		No, had three other jobs as teacher aide and carpentry.	Through the school	Assist teacher with activities	No
S25							

TABLE 20--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Where do you live?	How is money spent?	Items you have or use	Recreation	Friends Remember about school	Did not like science	What gives you most trouble since school?
At home	Budgets money Paying bills (interest rates)	Home (use) TV Radio Church choir Secretary of Sunday School	Window shop- ping Collects records Bowling	Girls about same age at Utica Jr. College	Did not like science	Would like to have own apartment
S18						
Away from home	No budget Instructions given by girlfriends	Rent Use TV Car Stereo, radio Health insurance Checking account Attends church Driver's license (took six road tests before obtaining license)	Drives around in car	Five girls in Jackson	Candy Striper	Nothing
S19						
Parents	Buys own clothes Pays utilities Understanding of deductions	Rent home TV Hospital insurance Saving account Boy Scouts Attends church Draft 1 D	Watch sports on TV Plays football and basketball	Friends in community	Driver's Education Gym	Nothing
S20						

TABLE 20--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Where do you live?	How is money spent?	Items you have or use	Recreation	Friends	Remember about school	What gives you most trouble since school?
Parents	Shop for clothes Paying on TV Sales tax Social security and deduction for food eaten in cafeteria	Home TV, stereo, tape player Installment buying Attend church Draft card	Plays records and tapes	Children that live on my street	Doing homework Not being able to take gym	Getting checks cashed
S ₂₁						
Parents	No information	No information	Basketball	His older brother	Still in school	In school
S ₂₂						
Mother	Pays social security Buys clothes	No information	Basketball Watch TV	Boys that play basketball	In school	In school
S ₂₃						
Parents	No information	Car Life Insurance Hospitalization Savings	Swim Car racing		After he was placed in Special Education	
S ₂₄						
At home	Bought guitar	Home (buying) Car TV, stereo Life, health & car insurance Attends church	Play records dance Basketball	Peers his own age at school & church	Activities in physical education particular basketball	Math
S ₂₅						

TABLE 20--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Have you had any trouble with the law?	Married, Engaged or What?	What will you be doing five years from now?
No S19	Single	Keep same position or begin training for O. B. technician.
No S20	Same girlfriend for two years	Wants to become an electrician
No S21	Girlfriend	Still working in cafeteria. Would like to become a policeman or fireman.
No S22	Girlfriend	Will be working in the same place
No S23	No information	No information (Cerebral Palsy)
Yes, I got two tickets for illegal muffler and for speeding. S24	Will be married June 29, 1972	Making preparation for a home.
No serious trouble I got pushed around a bit. S25	One special girl	Would like to be a carpenter
No S26	No special boy yet	Hopes to be married.

TABLE 20--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Male	Female	Age	Length of Employment	First job How many jobs? Changed, why?	How was job secured?	What do you do on job? Why?	Persons who give you a bad time on the job
	X	15	1 week	No, worked at hamburger stand	Through school	Help prepare food in cafe- teria. Cook and cleans up. To learn	No
S26							
X		16	6 weeks	First	Through school	Landscapping planting and cleaning up Likes work	No
S27							
	X	17	6 weeks	First	Teacher and Counselor	Makes hamburger wash dishes	No
S28							
X		18	2 years	First	Counselor	Cleaning	Sometimes, they bother me.
S29							
	X	18	6 weeks	First	Through school	Wash dishes. Because they have to be washed to be used again	No
S30							
X		18	2 months	No, worked at grocery store bagging groceries Sandblasting	Through school	Service station Cleans up, make credit cards, adds sales tax	No
S31							
X		19	7 months	First	Counselor		Sometimes
S32							

TABLE 20--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Male	Female	Age	Length of Employment	3 years	2 years	19	20	21	First job How many jobs? Changed, why?	How was job secured?	What do you do on job? Why? a bad time on the job	Persons who give you a bad time on the job
X									Odd part time jobs	Counselor	Pick up linen, cleans up. Work is to easy.	None in particular
S33												
X									First full time job. Part time work with youth corp. for three summers. Worked one summer with school district painting school building and classrooms	Employer in cafeteria and counselor	Assist cook, prepares salads Do general work in kitchen. Enjoys work in kitchen.	Sometimes when people tell you too many things to do at one time.

S34

179

TABLE 20--Continued

ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Where do you live?	How is money spent?	Items you have or use	Recreation	Friends	Remember about school	What gives you most trouble since school?
At home	Helps mother buy groceries sales tax Deductions from check	Home (buying) Car TV, stereo Attend church Clothes	Fishing Watch TV Play cards	Boys and girls from school	The people	No problem
S26						
At home	No information	Clothes Life Insurance Checking account Attend church	Visit friends	Few in neighborhood	Basketball Shop	Word problems and reading Foreman
S27						
Parents	Shop for clothes Buy groceries & bills Doesn't understand deductions made from check	Clothes Attend church Taking driver's education	TV	No Response	Nothing	Nothing
S28						
Parents	Pays bills	Car (paid cash) Stereo Gasoline Health and car insurance Saving account Driver's license	Listening to music	Man that work with him	Liked work-shop	Nothing
S29						

TABLE 20--Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Where do you live?	How is money spent?	Items you have or use	Recreation	Friends Remember about school	What gives you most trouble since school?
At home	Shops for clothes, candy and little items. Sometimes buys groceries	Home & car TV & stereo Life insurance Book club Sings in choir	TV Listen to records Bowls	Children met at school, home, & church	Nothing
S30					
Parents	Shops with mother Pays bills Not sure about social security	Shoes & clothes Stereo Company insurance Installment buying Savings Driver's license Draft	Basketball In neighborhood & work	Friends & physical education	Nothing
S31					
At home	No information	Radio Savings at bank Draft 4F	Listen to	Adults	No response
S32					
At home	Buys some clothes, groceries, and pays some bills	Home (buying) Car & TV Savings Church Driver's license Draft	Band radio Plays pool Drives around in car	At school Friction with personnel	Nothing
181 S33					
Aunt	TV & radio Attend church	Read news-paper Ride bike Church	Co-workers Church group	Manual training Likes to work with hands	Getting driver's license

TABLE 20---Continued
ANALYSIS OF VOCATIONAL EDUCATION QUESTIONNAIRE OF FORMER STUDENTS

Have you had any trouble with the law?	Married, Engaged or What?	What will you be doing five years from now?
S27 No	No information	Would like to become a carpenter or welder.
S28 No	No information	No information
S29 Yes, received a warning ticket for running through a red light.	No information	Thinks he will be working at the same place.
S30 No	No special boyfriend yet	Doesn't want to work. If I work I would like to work in a drug store, grocery store or in a cafe. Would like to be on my own, buy a mobile home and travel around the country.
S31 Yes, I broke in a house two years ago. I was curious.	No information	Move to north Mississippi with my aunt and uncle and become a farmer.
S32 No	No information	Probably have to go to the army.
S33 No	No girlfriend	Daydreams about having a good paying job, a home and larger radio.
S34 No	Single	Wants to be a "regular cook" in cafeteria, pass driver's test and do assembly line work

Recreation factors were minimal as in past research. TV, movies, stereos, and spectating were most often mentioned. Moderate responses were made about friends, and church relations were indicated by several. Answers were very limited with regard to remembering school (from former students).

Most information about law involvement was about car involvement. Of the older students, marriage and engagements were in evidence. The answers relating to a fine future were scattered--some were objective, others not. The future was not conceptualized very well with this sample.

An area of important information concerns the nature of work in which former EMR students are presently engaged. Such information should give educators insight regarding some dimensions of the vocational complex as it regards Mississippi. It would be possible to investigate "kinds" of work so that dimensions of it could be taught which would increase the chances of an EMR's better performance as an employee.

Data was supplied by the Mississippi Division of Vocational Rehabilitation which listed the number and DOT title of EMR rehabilitated clients for the 1970-71 fiscal year. While number is important, the type of work is of major interest in this research. Table 21 gives information of this data.

According to DOT systems, the following numbers are descriptive of:

- (0) 0-099-
- (1) 1000-1999-
- (2) 2000-2999- Clerical and Sales
- (3) 3000-3999- Service Occupations
- (4) 4000-4999- Farming, Fishing, Forest, and related
- (5) 5000-5999- Processing Operations

- (6) 6000-6999- Machine Trades Occupations
- (7) 7000-7999- Bench Work Occupations
- (8) 8000-8999- Structural Work
- (9) 9000-9999- Miscellaneous Occupations

and areas, by county, include:

- I - Monroe, Prentiss, Alcorn, Union, Lafayette, Calhoun, Lee, Tippaha, Benton
- II - Panola, Tallahatchie, Yalobusha, Choctaw, Webster, Leflore, Sunflower, Grenada, Attala, Winston, Holmes, Yazoo, Montgomery
- III - Coahoma, Bolivar, Washington, Sharkey, Quitman, Tunica
- IV - Lowndes, Kemper, Noxubee, Lauderdale, Clay, Neshoba, Oktibbeha, Newton
- V - Marion, Forrest, Perry, Jones, Jefferson Davis, Lamar
- VI - Harrison, George, Jackson, Pearl River
- VII - Pike, Adams, Jefferson, Wilkinson, Claiborne, Warren
- VIII - Madison, Leake, Scott, Smith, Rankin, Simpson, Copiah
- IX - Hinds, Jackson (city), Mississippi State Hospital, University Medical Center

TABLE 21

TYPES OF WORK BY REGIONS IN MISSISSIPPI FOR
REHABILITATED EMR IN 1970-71

Regional Areas	Types of Work										Totals
	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
I	--	--	6	11	5	18	6	29	5	10	90
II	--	2	1	24	20	9	18	29	8	12	123
III	--	1	11	63	20	52	8	53	13	16	237
IV	--	--	2	28	10	49	--	22	3	9	123
V	--	+	2	7	5	3	1	8	--	2	28
VI	--	--	1	2	1	3	4	16	9	9	45
VII	--	--	--	6	5	--	2	3	1	4	21
VIII	--	1	1	18	6	14	1	18	3	3	65
IX	2	--	8	15	1	8	2	9	8	7	60
Totals	2	4	32	174	73	156	42	187	50	72	792
%	trace	trace	4	22	9	20	5	24	6	9	100

(rounded to nearest whole number)

An important feature of Table 21 is that 66% of the "types" of job fall in three areas: Processing Operations, Bench Work, and Service Operations. Each of the other "types" are diffused in less than 10% totals.

While, no doubt, some of these findings can be explained by location, the "types" seem constant across the board. Farming, fishing, and forestry related areas seem to accord greater attention in areas II and III; but the jobs associated with (3), (5), and (7) stand out as major concerns for curriculum. Specifically, the numbers involved in each area, as it relates to Table 21 data, can be used for the following type of education:

(3) Service Occupations

Domestic Maid (26), Busboy (15), Child Care (13), Charwoman (12), Janitor (12), Attendent Health Service (9), Nursemaid (8), Practical Nurse (8), Cook (6), Kitchen Help (6), Fry Cook (6), and instances of Dorm Maid, Amusement Attendant, Pressing Cleaners, Man-of-all-work, Houseman, Cook Short Order, Nurses Aide, Housekeeper, Watchman, etc.

(5) Processing Operations

Miscellaneous (124), Butcher (10), and instances of Concrete Laborer, Candy Maker, Machine Operator, Dairy, Machine Operator Textile, Barrel Maker, Wood Preserver, Separator (Machine), Egg Cleaner, Chemical and Plastic Machine Operator, Foundry Worker, etc.

(7) Bench Work Operations

Carpet Sewers (64), Miscellaneous (51), Sewing Machine Operation (30) (including shoes), and instances of Wood Assembler, Cutter of Garments, Dress-Suit Fitter, Woodwork Hand Tools, Assembler of Small Parts, Grinder, Buffer, Boxer (Wood), Electric Repair, Fabricator, etc.

In number (5), the miscellaneous indicates a variety of jobs in assembling (small electrical parts, drill press, food process, packaging, etc.). It is interesting to note how well these type areas fit into the social-motor areas noted in early chapters. The skills involved need investigation for curriculum plans.

PART IV - SUMMARY

CHAPTER VIII

TOWARD SYNTHESIS

A vocational program for the high school EMR should be consistent with the social, economic, and political milieu, and with the ability dimensions with which these people must live.

How this may be best accomplished is a quandry. Still, the fact that society places children in educational settings gives educators the opportunity for directed help; and hopefully, this is done at a time when interventions are of benefit.

One type of intervention is that relating to the content of curriculum. It has been shown that "normal" content is not necessarily relevant to the EMR's. When one observes life style, everyday function, vocational behaviors, and situations of "graduated" EMR students, it becomes clear that many are educationally prepared for a non-existent life, or for one that is not available. Realistic goals are more to the point. The question of what realistic goals are is open, but it seems that a better understanding is coming into focus.

Chapters one through seven explored concerns related to vocational education for the EMR in the hopes that significant dimension clusters could be found. Some of the findings are not new, others are. If educators are genuinely serious about what areas are important to EMR vocational education, these findings should not be ignored.

Factors seem to relate quite clearly to Social Dimension; they relate less clearly, however, to Psycho-Motor Dimensions and to a third group of dimensions that do not cluster except as "style" or "community" statements.

Factors Relating to Social-Emotional Dimensions

1. Personal appearance and good health practices are outstanding dimensions of concern. This is not unique with EMR populations, but seemingly particular to them. One can easily speculate about their importance here. One's being retarded is one thing; however, one's being retarded and having a poor appearance and/or having poor health habits make the chances for adequate vocational pursuits dim. Inappropriate use of cosmetics, clothing styles, cleanliness, health aids (including the handkerchief), and protection are important factors. Much of the EMR's ability to become an economically self-supporting member of society may depend upon his being physically healthy and upon his using his physical attributes wisely. If a student comes from a home where marginal or substandard health conditions exist, the school program may need to assist in the development of those health practices which have been neglected.

Parameters--physical appearance, cosmetics, shaving, grooming, hair styles, health habits, health services, sex education, safety on the job, and cleanliness.

2. Family support and relatives have an important influence. These cannot be considered unique as factors with EMR populations. Still, research suggests unusual numbers of this population associated with conditions of poverty, of being disadvantaged, of having poorer home-family conditions, and of having less educated parental figures. Talks with school vocational workers have pointed out a status problem where parents have strenuously objected to anything outside "normal" limits. For example: community work experience; work-sampling, etc. Many such parents have indicated that what their child needs is just more "reading and writing." Perhaps this is right, but more to the point is an understanding of the objectives of the program and the establishment of more realistic goals. Such counseling dimensions are within the realm of the school which calls for complete recognition of the objectives of the program for the EMR.

Parameters--stability of the home, home responsibility, school responsibility (a chance to be responsible), exercise initiative in the home, sense of responsibility, family support.

3. Personal and social skills are of crucial vocational concern. Here again, we are faced with an area not uncommon to the general population; however, there is some question about whether the learning skills and experience prerequisites are indeed learned in a similar fashion. One notion is that, since failure is a socially learned phenomena, the retardate has an impaired ability to conceptualize himself as having failed or not failed (Cromwell, 1963). If this is the case the EMR would find very little to relate to in what observers call normal. This suggestion would also help answer why the instance rates of abnormal behavior appear higher with EMR populations. Even more importantly, the notion suggests the difficulty in education and that which relates to work. The retarded will find personal and social skills, probably unknowingly, a dominant feature in their vocational life which many studies indicate. Few seem to realize, however, the depth of understanding or the dimensions of this area as a crucial curriculum factor.

Parameters--handling criticism, ability to adjust, accepting established practices (as work related or in understanding "why"), an acceptable "manner" of interpersonal interaction, patience, mind-own business, reacting to evaluations, loyalty (as it relates to job), understand work, decision making (his and others), character.

4. General social skills associated with an environmental milieu are vocational factors for the EMR. All people live in a social milieu. The milieu is understood differently by different people. Indications are that the EMR have less or altered experiential growth which impairs their ability to benefit from it. It is doubtful that an ability to generalize from other experiences can be learned, and inputs (sensory) from the milieu may arrive too fast for assimilation. In essence then, a general environmental deprivation may exist. The social skill factors go far beyond a unit on "manners" which seem a dominate theme in many curricula. The school program needs to pay close attention to this area, and it may need to heavily structure such experiences. Many times social skills, like sex education or toilet training, are assumed to be known. We have no right to this assumption.

Parameters--"good" socializing activities, cheerfulness, even-tempered, feeling adequate, moods, protocol, ambition, willingness, cooperation, initiative, forgetfulness, infantilism, attitudes.

5. Certain factors of emotionality need modification. Characteristics in this area relate to the appropriateness of behavior like laughter or certain kinds of

respect in a particular situation. Many social amenities are not understood by the EMR, and he sometimes responds inappropriately due to misunderstanding. Sometimes this is called immaturity and relates to the observation that the retarded "seem always to do the wrong thing."

Parameters--respect, courteous, confidence, appropriate aggressiveness, understanding luck, social grace, consideration for others, caution, responsible, honesty, reliability.

Factors Relating to Psycho-Motor Dimensions

1. Intelligence is not an overriding factor in unskilled, semi-skilled, or service occupations. Reliability and good effort seem to be far more important. While this factor may not be a "pure" motor area, it is associated in the context of having some internalization of "what" people do, "how" to go about certain tasks, and what expectations are involved. It is also important that appropriate occupations are viewed. This calls for a realistic survey of work and for understanding the dimensions involved in such work. Each geographical area may be different in this respect; and certainly, "city" jobs are different than "country" jobs.

Parameters--work relating to service, clerical and sales, farming related, and processing occupations; concentrating on tasks; supervisory time, following a course of action; accepted practices, adaptability (variety and repetitive), what is accomplished, light industry, job comprehension.

2. Work aptitudes relating to various kinds of occupations are related to vocational success. Very few forms of human behavior do not involve some type of movement. Motor characteristics have important vocational implications in addition to those relating to theoretical interest. It is likely that many EMR's are not motivated to practice motor skills as much, or as appropriately, as normals. Many are not given sufficient developmental practice; and often what attention they receive is inappropriate for the motor maturation of the child. Evidence exists that job possibilities for the EMR are varied. Such people can be trained for industrial tasks, production operations, and much work demanding complex motor skills. The preponderance of evidence is that this is a neglected area of EMR work education and that such activities can be taught with successful effect.

Parameters--counting, alphabetize, make change, assembly tasks, sorting (speed and accuracy), manipulating tasks, packaging, use of hand tools, motor coordination (fine

and gross), dexterity (finger and arm), coordination, discriminative (visual and auditory), coding, collating tasks, clerical and form perception, pursuit tasks, matching, separating, motor speed, spatial operations.

3. The work-sample approach tends to give better application in training methods. The work-sample method which dates back to the early 1900's has been used many years. This has traditionally been an activity of workshops, associated agencies, and of the military. There seem to be several positive aspects of this approach for the EMR. Some astute observational evaluations can be made. The students can learn expectations and can receive a feeling for a job (sample of); production standards can be tried, and practice can be given. All these bringing the notion of work to a better understanding.

Parameters--motions, filing, reading addresses, sales orders, catalogs, patterns, sales slips, writing, production records, step operations, work habits, memory, motor decision making, machine operations.

Factors Relating to Society

1. A survey of the community is important in that it gives useable information for training. Some knowledge of what people are doing, job trends, the social climate, and travel are crucial aspects of job getting and holding. Case studies are full of instances where jobs were made or held because of not knowing how or where to go, what to do, or whom to see. Many times educators assume such skills are known (and some educators do not know themselves), which is a very critical assumption. Fields have long been used for learning. Concrete operation of what people do must be added for the EMR. How seldom this educational device is used is shocking.

Parameters--application blanks, travel, driver training, social sensitivity, laws that effect workers, unions, community survey, trends, job appraisals, work liability, labor economics, profit motive, employment requirements, contacts, restrictions, social security cards, health permits, birth certificates.

2. Special training programs offer an extremely useful dimension to EMR vocational education. Cooperative programs with rehabilitation and/or vocational agencies have proved successful. So, also, have innovative school districts which developed creative work experience programs without the use of "other" agencies. Reference to this phase of education for the retarded was made succinctly by the President's Panel in 1962.

Perhaps, this factor is more method than activity, but it still should be part of the curricula.

Parameters--training courses, on-the-job activities (school-community), cooperative programs, learning parts of job, procedures, job relationships.

Summary

This paper has attempted to review several dimensions related to developing a curriculum for Vocational Education peculiar to the high school EMR. The dimension included a review of literature, descriptions of cooperative programs, interviews with vocational workers, and a survey of job placements. We believe this data pointed out many parameters for curriculum planning.

A companion manual is prepared dealing specifically with the data found here. Hopefully, this manual (Volume II, A Vocational Curriculum for the High School EMR, Plue, 1972) will benefit educators in helping the retarded become vocationally competent.

BIBLIOGRAPHY

- Abel, Theodora M. "A Study of a Group of Subnormal Girls Successfully Adjusted in Industry and the Community." AJMD, XLV (1940), 66-72.
- Anastasi, Anne. Psychological Testing. New York: The MacMillan Company, 1957.
- Appel, Melville. "Significant Factors in Placing Mentally Retarded From a Workshop Situation." Personnel and Guidance Journal, XLI (1962), 260-65.
Features needed to be successful--performance and social.
- Badham, John N. "The Outside Employment of Hospitalized Mental Defective Patients as a Step Towards Resocialization." AJMD, LIX (1955), 666-80.
Follow up--discussion of physical abilities.
- Baer, Max F. "Mentally Retarded Youth Training and Employment." Personnel and Guidance Journal, XXXVIII (1960), 456-57.
- Banmeister, A. A.; Howkins, W. F.; and Holland, J. "Motor Learning and Knowledge of Results." AJMD, LXX (1966), 590-94.
- Benton, Arthur L. "Evaluation and Diagnosis." Mental Retardation: A Review of Research. Edited by H. A. Stevens and R. Heber. Chicago and London: University of Chicago Press, 1964.
- Blackmon, Leonard S. "Research Needs in the Special Education of the Mentally Retarded." Exceptional Child, XXIX and XXX (1963), 377-83.
Review--concerned about materials in special education.
- Burdett, Arthur D. "An Examination of Selected Pre-Vocational Techniques Utilized in Programs for the Mentally Retarded." Mental Retardation (August, 1963), 220-35.
- Cantor, G. N. "Motor Performance of Defectives as a Function of Competition with Same and Opposite Sex Opponents." American Journal of Mental Deficiency, LVI (1951), 358-62.

- Cantor, G. N., and Stacy, C. L. "Manipulative Dexterity in Mental Defectives." AJMD, LVI (1960), 401-10.
Performance study--EMR low in dexterities.
- Cohen, J. S. "An Analysis of Vocational Failures of Mentally Retarded in the Community After a Period of Institutionalization." AJMD, LXV (1960), 371-75.
Review of unsuccessful EMR workers--describes problems workers had in detail.
- Collman, R. D., and Newlyn, D. "Employment Success of Mentally Dull and Intellectually Normal Ex-Pupils in England." AJMD, LX (1956), 372-80.
Follow up study--IQ and work relationship--some community question about study for comparison--personality factors.
- Cowan, L., and Goldman, M. "Selection of the Mentally Retarded for Vocational Training and the Effect of This Training on Vocational Success." Journal of Consulting Psychology, XXIII (1959), 73-84.
- DiMichael, S. G. "Vocationally Rehabilitation of the Mentally Retarded." American Journal of Mental Deficiency, LVII (1952).
- Dinger, Jack C. "Post School Adjustment of Former Special Education Pupils with Implications for Curriculum Revisions." Unpublished doctoral dissertation, Pennsylvania State University, 1958.
A follow up study--problem may remain of a particular community situation--a good study.
- Engel, Anna M. "Employment of the Mentally Retarded." AJMD, LVII (1952), 243-67.
Little use for academic skills--should know laws.
- Eskridge, Charles S., and Partridge, D. L. "Vocational Rehabilitation of Exceptional Children Through Special Education." Exceptional Children, XXIX and XXX (1963), 452-58.
Description of Texas plan.
- Ferguson, Robert G. "Evaluation of Vocational Aptitudes and Characteristics of Mentally Retarded Young Adults in an Industrial Agricultural Workshop." American Journal of Mental Deficiency, LXII (1958), 787-91.
- Fitzpatrick, F. R. "Training Outside the Halls." AJMD, LX (1956), 826-37.
Description--work habits not too controlled.

Fraenkel, William A. "Present Status of Rehabilitation for the MR." Journal of Rehabilitation, XXVIII (1962), 21-31.

Description--good insight--makes good counseling points.

Francis, R. J., and Rarick, G. L. "Motor Characteristics of the Mentally Retarded." U.S. Office of Education, Cooperative Research Monograph No. 1. Washington, D.C.: Government Printing Office, 1960.

Franklin, R. A. "Work Experience Program at Long Beach Polytechnic High School." Work Education for Educationally Retarded Youth. Edited by Francis E. Lord. Los Angeles, California: California State College, 1964.

Describes Long Beach program and step procedures in putting students on the job.

Fry, Lois M. "A Predictive Message of Work Success for High Grade Mentally Deficient." American Journal of Mental Deficiency, LXI (1956), 402-08.

Geisler, Leon. "Social, Legal, and Educational Aspects of a Work Experience Program for MR Students on the Secondary School Level." AJMD, LXI (1956), 352-61.
Descriptions of problems in California.

Goldstein, Herbert. "Issues in Education of EMR." Mental Retardation (August, 1963), 141-48.

_____. "Social and Occupational Adjustment." Mental Retardation. Edited by H. A. Stevens and R. Heber. Chicago: University of Chicago Press, 1964.

Gragert, Herbert T. "Differential Diagnosis, Training, and Job Placement for the Mentally Retarded." Journal of Rehabilitation, XXVIII (1962), 35-37.

Importance of personal and social skills--he is rather pessimistic.

Greene, Charlotte L. "A Study of Personal Adjustments in Mentally Retarded Girls." AJMD, XLIX (1945), 472-76.
Follow up--no IQ relation--some sheltering here.

Gunzburg, H. C. "Earl's Moron-Battery and Social Adjustments." AJMD, LXIV (1959), 92-163.
EMR measured on test-emotional factors.

Hartzler, Ethel. "A Follow-up Study of Girls Discharged From the Laurita State Village." AJMD, LV (1951), 612-18.

Mixed TMR and EMR--no IQ relationship.

Jacobs, Abraham, and Weingold, J. T. "The Sheltered Workshop: A Community Rehabilitation Resource for the MR." New York: Teacher's College, Columbia University, 1958.

Kinzer, J. R. The Third Mental Measurements Yearbook. Edited by O. K. Buros. New Jersey: The Gryphon Press, 1949.

Kirk, S. A., and Johnson, G. O. Educating the Retarded Child. Cambridge, Mass.: Houghton-Mifflin Co., 1951.

Basic textbook on total education of the EMR--references and discussion about occupational education.

Kokaska, Charles. "A Tool for Community Adjustment." Mental Retardation. (December, 1964), 365-73.
Check list and surveys of community.

Kolstoe, O. P. "An Examination of Some Characteristics Which Discriminate Between Employed and Non-employed Mentally Retarded Males." American Journal of Mental Deficiency, LXVI (1961), 422-81.

_____. "The Employment and Training Program." American Journal of Mental Deficiency, LXV (1960), 17-31.

Kolstoe, O. P., and Shaffer, A. J. "Employability Prediction for MR Adults: A Methodological Note." American Journal of Mental Deficiency, LXVI (1961), 287-89.

Kruger, Daniel H. "Trends in Service Employment: Implications for the EMR." Journal of Rehabilitation, XXIV and XXX (1963), 167-72.
Survey labor market-contracts.

Kubiak, John A. Wisconsin State Board of Vocational and Adult Education. Rehabilitation Division Form UR-22 (2C-1-56), (1959).
Description of DVR programs--skills needed.

Larson, Keith. "The Use of the WISC and Raven Progressive Matrices Tests as Predictors of Vocational Competence in EMR Students." Unpublished doctoral dissertation, University of Oregon, 1961.

- Lipman, R. S. "Learning Verbal Perceptual-Motor, and Classical Conditioning." Handbook of Mental Deficiency. Edited by N. R. Ellis. New York: McGraw-Hill, Inc., 1963.
- McIntosh, W. J. "Follow-up Studies of One Thousand Non-Academic Boys." Exceptional Child, XV (1949), 166-70.
Good description, but sample not well controlled for EMR.
- MacMillian, M. B. "Adjustment and Process: A Neglected Feature of Follow-up Studies of Retarded People." American Journal of Mental Deficiency, LXVII (1962), 418-23.
- Madison, Harry L. "Work Placement Success for the MR." AJMD, LXIX (1964), 50-53.
Describes a program in Madison, Wisconsin.
- Malpass, Leslie F. "Motor Skills in Mental Deficiency." Handbook of Mental Deficiency. Edited by Norman R. Ellis. New York: McGraw-Hill, Inc., 1963.
- May, Leonard W. "Philosophy and Recommendation of the President's Panel on Mental Retardation to Education, Vocational Rehabilitation, and Training." Exceptional Children, XXIX and XXX (1963), 425-30.
States how plans for DVR can work.
- Michael-Smith, H. "A Study of the Personal Characteristics Desirable for the Vocational Success of the Mentally Deficient." AJMD, (1950), 139-43.
Work habits.
- Mullen, Frances A. "Mentally Retarded Youth Find Jobs." Personnel and Guidance Journal, XXXI (1952).
Description of successful EMR--clear, but not specific--describes details.
- Nell, Walter S. "The Success of a Rehabilitation Program--A Follow-up Study of a Vocational Adjustment Center." Monograph Np.3, The Jewish Vocational Service, (Chicago, Illinois, 1959).
Need of family support--work habits.
- Occupational Outlook Quarterly, October-December, 1965, 4-6.
Pamphlet four times a year--surveys economic conditions.
- O'Conner, M. "Defectives Working in the Community." AJMD, LIX (1954), 173-80.
Follow-up--points out need for physical attributes.

Phelps, H. R. "Postschool Adjustment of MR in Selected Ohio Cities." Exceptional Child, (1956), 58-62.
Some relationship to higher IQ and stabilization in work.

Plue, William V., and Fahey, D. F. "Follow-up Study of Special Education Graduates." Unpublished report for Portland School District, 1966.

Potts, Jane H. "Vocational Rehabilitation for the MR in Michigan." AJMD, LVII (1952), 247-320.
Describes jobs in community--mechanics.

Power, Ray F. "Major Issues: A Plan of Action." Journal of Rehabilitation, XXVIII (1962), 31-33.
Observations of DVR programs--cannot be stereotyped--tend to underestimate EMR.

President's Panel on Mental Retardation. "A Proposed Program for National Action to Combat Mental Retardation." Washington, D.C.: Government Printing Office, 1962.

Government involvement on MR program--plans.

Reynolds, M. C., and Stunkard, C. I. "A Comparative Study of Day Classes vs. Institutionalized Educable Retardates." Project 192, College of Education, University of Minnesota, 1960.
Some relationship to IQ and work, but the comparisons are questionable--social aspects.

Rockover, Leonard W. "A Study of MR Applicants for Vocational Rehabilitation in New York City." AJMD, LVII (1952), 268-96.
Checks and describes dropout-sample not controlled.

Sarason, Seymour B. Mental Subnormality. New York: Basic Book, Inc., 1958.

Seidenfeld, Morton A. "Gaps and Trends in Rehabilitation of the Retarded." Journal of Rehabilitation, XXVIII (1962), 37-39.

Shaffer, A. J. "Criteria for Selecting Institutionalized Mental Defectives for Vocational Placement." American Journal of Mental Deficiency, LXI (1951), 11, 589-616.

Shaw, Bernard. "A Coordinated School Supervised Work Experience Program for the EMR." AJMD, LXIV (1959), 578-83.
Describes BWE in Albany High School and how it was developed.

- Spivak, G. "Perceptual Processes." Handbook of Mental Deficiency. Edited by N. R. Ellis. New York: McGraw-Hill Inc., 1963.
- Super, D. E. Appraising Vocational Fitness. New York: Harper and Bros., 1949.
- Tizard, J. "The Employability of High Grade Mental Defectives." American Journal of Mental Deficiency, LIV (1950), 563-76.
- U.S., Department of Labor. Norms: GATB, Section II, 1962.
- Warren, F. G. "Ratings of Employed and Unemployed Mentally Handicapped Males on Personality and Work Factors." AJMD, LXV (1961), 629-33.
Develop rating systems on "type" of work done.
- Windle, C. O. "A Prognosis of Mental Subnormals: A Critical Review of Research." American Journal of Mental Deficiency Monograph II, LXVI (1962), 1-180.
- Wintrop, H. "An Inquiry Concerning the Prevalence of Popular Misconceptions Relating to Mental Deficiency." AJMD, LXII (1957), 344-48.
False beliefs seldom accepted--literature needs condensing.
- Zeamon, O., and House, B. J. "The Role of Attention in Retardate Discrimination Learning." Handbook of Mental Deficiency. Edited by N. R. Ellis. New York: McGraw-Hill Inc., 1963.